311.3

MULTI-USE

A STUDY OF THE MULTIPLE USE
OF HIGHWAY RIGHT-OF-WAY IN THE
INTERSTATE ROUTE 95 CORRIDOR IN THE
CITY OF NEW LONDON, CONNECTICUT

September, 1971

Prepared for:

The City of New London, Connecticut

Prepared by:

James P. Purcell Associates, Inc.
Hartford - New London, Connecticut

PROPERTY OF
SOUTHEASTERN CONNECTICUT REGIONAL PLANNING AGENCY
139 BOSWELL AVENUE, NORWICH, CONNECTICUT 06360

TABLE OF CONTENTS

	PAGE
I. INTRODUCTION	1
II. MULTIPLE USE CONCEPT	1
BENEFITS OF MULTIPLE USE	1
PRINCIPLES OF MULTIPLE USE	2
LEGAL ASPECTS OF MULTIPLE USE CONCEPT	2
III. EPITOME OF REPORT	3
IV. THE NEW LONDON SETTING	4
DESCRIPTIVE ANALYSIS OF HIGHWAYS STUDIED	4
Regional Context	4
Local Context	6
AREA OF STUDY	7
Existing Land Use	7
Character Analysis of Study Area	7
Topography	9
Population Distribution	10
Zoning	10
V. IMPACT OF HIGHWAY DEVELOPMENT ON NEW LONDON	10
SOCIOLOGICAL IMPACT	10
ECONOMIC IMPACT	11
ENVIRONMENTAL IMPACT	11
View From Freeway	11
Around the Freeway	13
VI. PLAN OF DEVELOPMENT	17
GOALS AND OBJECTIVES	17
PROPOSED LAND USE	17
LAND AVAILABLE FOR DEVELOPMENT	20
SECTOR ANALYSIS	22
Objectives of Development	
Prerequisites to Development	
Controls of Development	
Development Potential	
BENEFITS THAT ACCRUE TO THE CITY	47
SUMMARY OF PREREQUISITES TO DEVELOPMENT AND ESTIMATED COSTS	48
GENERAL CONTROLS FOR THE DEVELOPMENT OF REAL PROPERTY	53
PLAN SUBMISSION	54

INTRODUCTION

Urban freeways, most of which are part of the Interstate highway system, are constructed within rights-of-way that are exclusively devoted to the mode of travel itself. By 1960, four years after the authorization of the Interstate System, more than 2,000 miles of urban freeway had been constructed, and by 1970 this total milage had more than doubled. Projections indicate that in the next ten years the need for urban transportation corridors to compliment urban growth and its associated travel problems will increase to approximately 16,000 miles of route with over 5,000 miles of urban freeway on alignments not presently incorporated within the designated Interstate System.

In an effort to satisfy the urgent demands of the interstate program, highway departments have devoted much of their time to the technical and engineering aspects of the urban freeway and have neglected the potentialities of the multiple use approach to urban freeway development.

Realizing that freeways are major land uses within the urban environment and that they are competitors for prime revenue-producing land within the city, methods must be devised to ameliorate the negative aspects of urban freeway development and to enhance the social and economic advantages that can accrue to an urban area.

Competition for a limited urban land resource forces a multiple discipline approach to urban freeway design and a collaborative utilization of this land so that the benefits of such development are greater than if each use were separately planned and executed.

Traditionally, freeways within the urban context are considered an intrusion and disruptive influence for all but commercial use types which seek to inherit financial increments from the new corridor. City inhabitants, particularly, are vehemently opposed to elaborate freeway elements close at hand for obvious reasons. However, the urban freeway is a logistical requirement for modern city sustinance. If the negative aspects of freeways can be effectively diminished through sound transportation technology and planning, freeway corridors will be shown not to have a detrimental effect on the riparian community. Futhermore, through multiple-use concepts in development, land normally sterilized by freeways, can be gainfully redeveloped in a manner that protects the integrity of the facility itself as well as the functionality of the city. This, in essence, is the scope of this report.

MULTIPLE USE CONCEPT

Ideally, the concept of the multiple-use of highway rights-of-way should be utilized at the inception planning stages of the new transportation facility. Under these conditions, the concept of multi-use has been defined as the process of conceiving, planning, designing and implementing an aggregation of urban development activities in a unified manner such that the benefits accrued are greater than the individual benefits of separately planned activities.

The scope of this study is limited and falls short of this analogy. The freeway design phase superseded in-depth considerations for multiple-use of the highway lands as the Interstate 95 and Connecticut Route 32 transportation complex had reached the final design phase before work was undertaken on this study.

Thus, the definition for this study of multiple-use has to be modified. Considering the "after-the-fact" situation and unique land use patterns of New London, the concept of multiple-use can be modified as follows: "the process of conceiving, planning, designing and implementing an aggregation of urban development activities within the confines of an existing transportation corridor in such a manner that benefits can be returned to the City without disrupting the integrity of the transportation corridor".

BENEFITS OF MULTIPLE USE

The application of the concept multiple-use of highway rights-of-way in the study area of New London can provide the potential for accruing economic, social and environmental benefits to the City. The following represents the potential benefits that can be derived from the multiple use of highway rights-of-way:

- To provide economic return to the City's tax base.
- To reduce urban land market pressures and competition.
- To provide urban amenities.

- To improve the quality of the urban environment.
- To stimulate new investment in urban development.
- To generate additional employment opportunities.
- To reduce congestion on local streets.
- To lessen the impact of the urban freeway on the environment.

PRINCIPLES OF MULTIPLE-USE

General principles of the multiple-use approach as applied to the problems and opportunities for improving the quality of an urban transportation corridor are as follows (with specific reference to New London):

Environmental Viability - the scale of the freeway corridor will dominate its surrounding physical environment to a degree. The problems of noise, pollution, and appearance must be studied and solutions found in order to maintain the integrity of New London's environment and to satisfactorily withstand the onslaught of the freeway's intrusion into the environment.

Sociological Viability - the scale of the freeway may also disrupt existing neighborhood and community living patterns. Amenities, both physical (facilities and services) and psychological (mobility and opportunity) must be maintained or replaced.

Economic Viability - the construction of urban freeways is usually at the cost of tax-producing properties, and the area under review is no exception. As New London presently contains a large percentage of non-taxable land (roughly 55%), the problems are exacerbated. The major thrust of this study therefore, is towards establishing feasibility for the intensive reuse of highway right-of-way lands. The development potential is directed towards the private sector. Basic new investment by private developers will produce revenues for the City through real and property taxes and in addition, will act as generators of employment.

LEGAL ASPECTS OF THE MULTIPLE-USE CONCEPT

Public Act No. 549. "An Act Concerning Multiple-Use and Joint Development On, Over, or Under Any State Highway Right-of-way", permits the Connecticut Department of Transportation to lease or sell their inherent interests in air-rights over or under any State highway right-of-way. The most important aspects of this Act insofar as the City of New London is concerned, are found in the following sections:

Section 3 — The Highway Commissioner has the power to acquire by purchase or condemnation additional air-space or land interests that are needed to ensure the feasibility of the multiple-use or joint development of existing State highway rights-of-way.

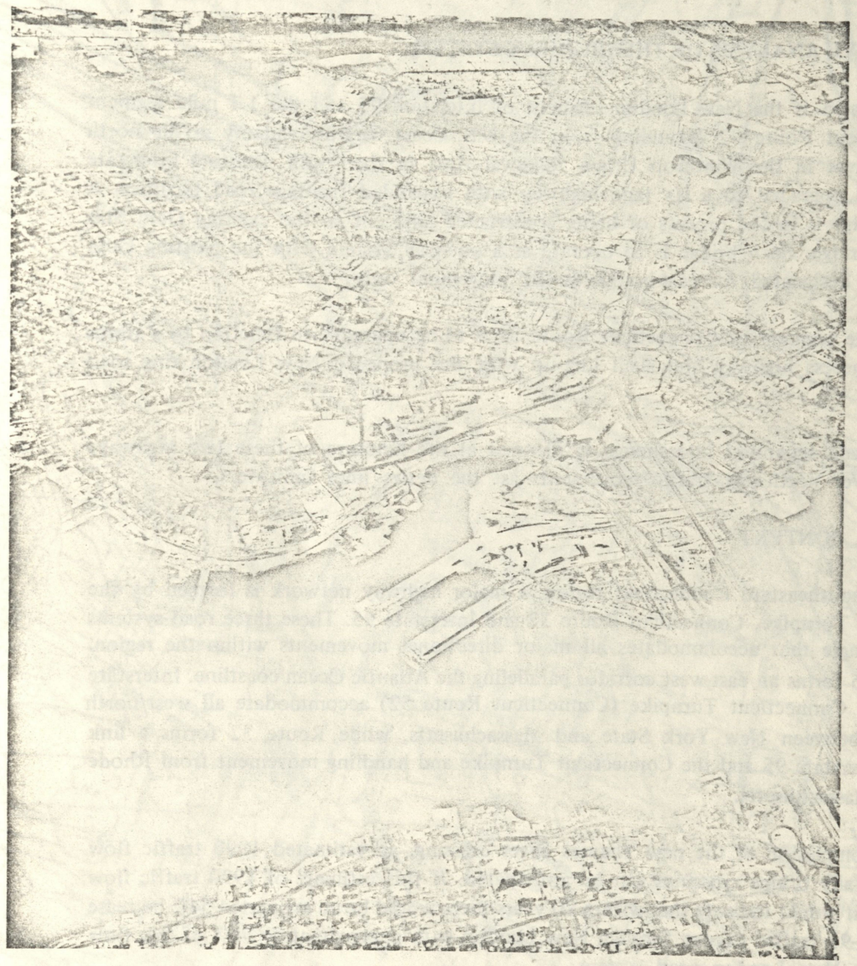
Section 4 — The intended use of any air-rights space must conform to all the codes and ordinances of the local municipality.

Section 5 — The municipality has the power to tax air-rights buildings and lands.

The area between Lewis Street and Adelaide Street falls outside the highway taking lines but provides an appropriate instance where the provisions of Section 3 may be applied in order to strengthen the economic and environmental case for the proposed industrial multiple-use of land.

The provisions of Section 4 of the Act indicate that developers must conform to all the local codes and ordinances. In addition to these requirements, developers will be required to conform to the land use controls set forth in the Plan of Development of this report. In addition, restrictions will be mandated by the Highway Department to ensure the safety and efficient operation of the highway facilities.

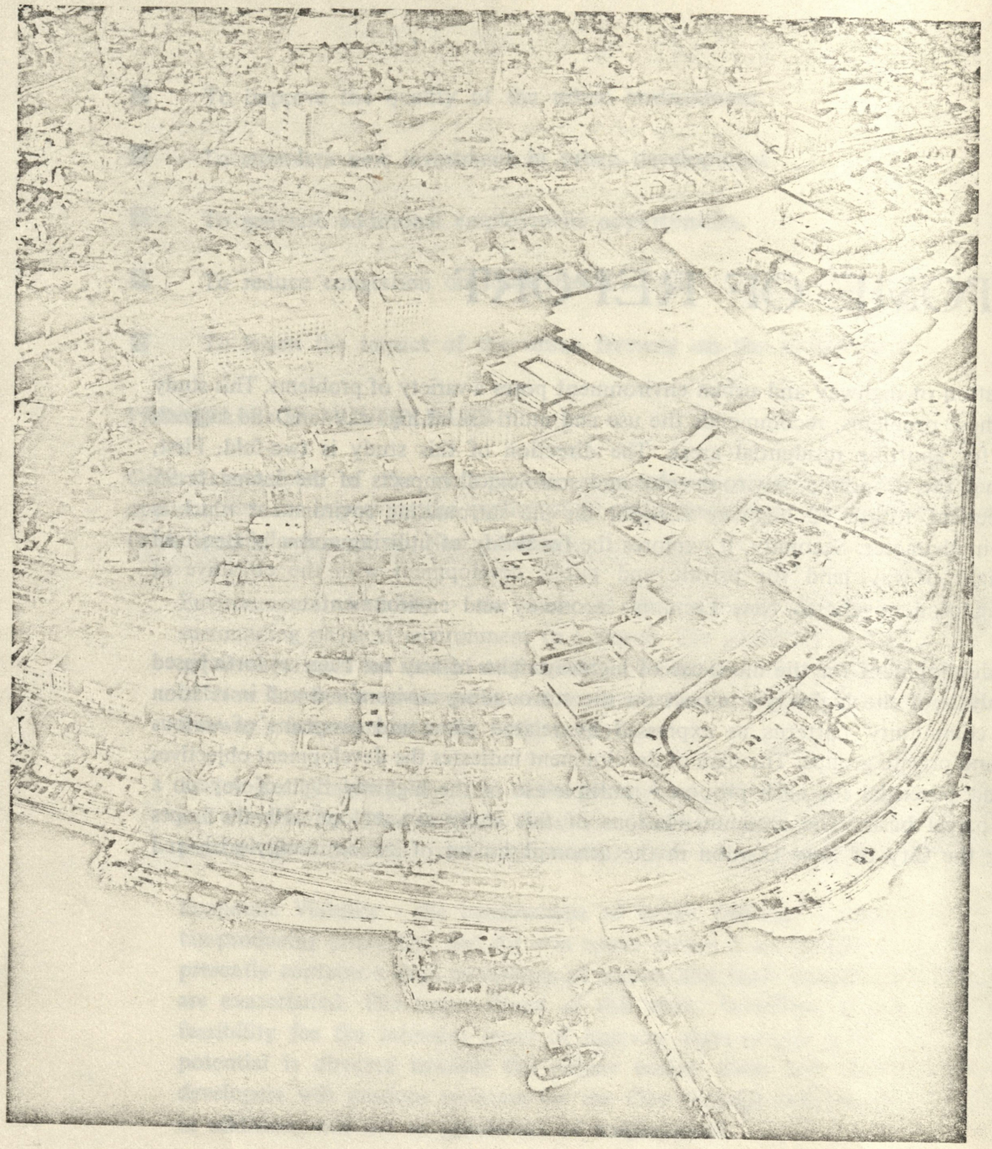
The provisions of Section 5 of the Act are perhaps the most important when the aggregate area of publically owned land in the City of New London is considered. With over 55% of the City's land exempt from taxes, Section 5 provides the opportunity for publicly owned lands to contribute to the City's tax base.



EPITOME OF REPORT

The integration of highway and urban environment poses a variety of problems. This study identifies these problems, recommends the use and multi-use of highway land and suggests treatment for abutting residential areas. The direction of this study is two-fold. First, it determines the economic, environmental and sociological impacts of the Interstate 95 and Connecticut Route 32 highway corridor on the surrounding environment which is residential in character. Secondly, it explores the feasibility of utilizing normally sterilized highway rights-of-way land for private and public development with the objective of contributing productively to New London's economy and environment.

A plan of development for the multi-use of highway rights-of-way has been set forth based on the analysis of the highway's impact on the surrounding environment and in relation to future community patterns as expressed by related plans and programs of various municipal and private groups. The plan of development indicates the development objectives, controls and potential for each proposed multiple-use of the highway right-of-way on a parcel by parcel basis. The recommendations of this study are set out with the hopes of assisting the City of New London in the accomplishment of its community goals and objectives.



THE NEW LONDON SETTING

DESCRIPTIVE ANALYSIS OF THE HIGHWAY SYSTEM

The study area is the New London segment of Interstate 95 and the 1.1 mile segment of Connecticut Route 32 extending from the U.S. Coast Guard Academy in the north to Main Street in the Winthrop Urban Renewal Area in the south. Existing Interstate 95 is to be upgraded to a six lane highway with expanded frontage road facilities. A "sister" bridge is in the process of being constructed adjacent to the existing Gold Star Memorial Bridge. Each bridge is to operate as a one-way system with the existing Gold Star Bridge designated for east-bound traffic movement only.

The 1.1 mile segment of Connecticut Route 32 is to be upgraded in function to a status of limited access highway and shall link-up with the proposed New London ring road system.

A major grade separated interchange is planned at the juncture of these two highways and will favor north-east traffic movements as the desire lines indicate.

REGIONAL CONTEXT

Within the southeastern Connecticut region, a major highway network is formed by the Connecticut Turnpike, Connecticut Route 32 and Interstate 95. These three road systems form a triangle that accommodates all major directional movements within the region. Interstate 95 forms an east-west corridor paralleling the Atlantic Ocean coastline. Interstate 95 and the Connecticut Turnpike (Connecticut Route 52) accommodate all west/north movement between New York State and Massachusetts, while Route 32 forms a link between Interstate 95 and the Connecticut Turnpike and handling movement from Rhode Island to Massachusetts.

With the completion of the new Thames River crossing, an estimated 1990 traffic flow of 86,400 daily bridge crossings can be anticipated. If this estimate of 1990 traffic flow is attained, it would indicate that within 20 years there would be an estimated 54% increase in current I-95 traffic passing through New London with approximately 50% of this flow entering the New London road system.

AREA OF STUDY
NON-ACCESS AND ROAD CLOSURES

NON-ACCESS LINES
ROAD CLOSURE
EXISTING HIGHWAY LINE

N

RIVER

THAMES

TOWN CITY

WINTHROP URBAN RENEWAL AREA

WINTHROP COVE

NEW LONDON

GROTON NEW LONDON

LOCAL CONTEXT

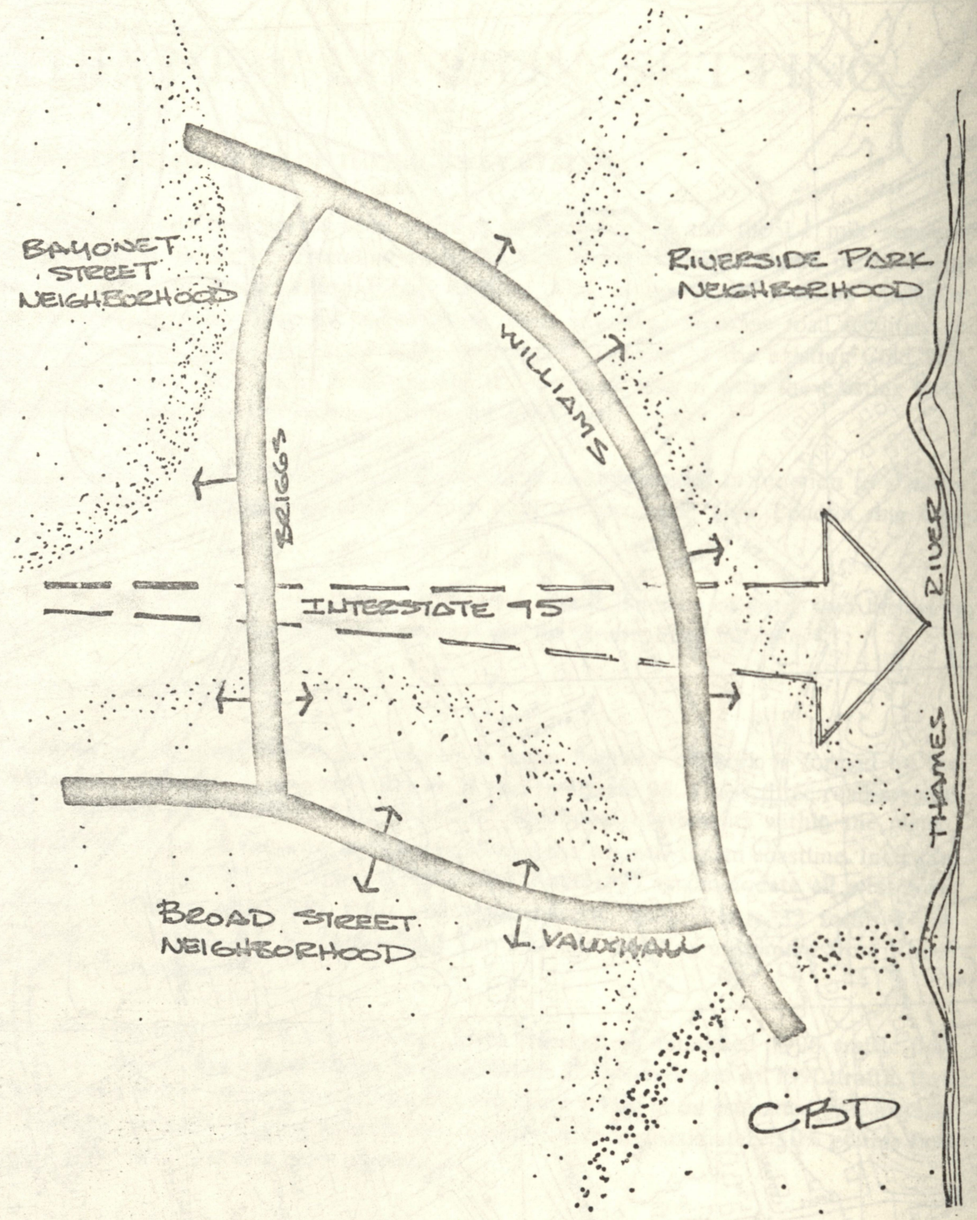
The highway and interchange development proposed will bring about the closure of approximately 3 1/2 miles of local and State maintained roads, and the construction of approximately 9 1/2 miles of new roadway (excluding the widening of Interstate 95). Thus, the character of local traffic will undergo major changes.

Local north-south traffic movement across the Interstate 95 corridor will be improved as the Briggs and Coleman Street extentions and relocated Williams Street will provide for good access from the north to the New London C.B.D. and vice versa.

East-west vehicular movement along the south side of the Interstate corridor (Broad Street and Vauxhall Street) retains its existing roadway characteristics. However, its service characteristics will be enhanced due to improved north-south ease of travel and the dilution of traffic on the local road system.

The new interchange and necessitated road closures will, to a certain degree, restrict cross traffic movements in the immediate vicinity of the freeway. A triangular loop system around and through the interchange was evolved out of the road lattice. This loop is created by Briggs Street (Extention), relocated Williams Street and Vauxhall Street. This road pattern is seen to act as a giant circulator permitting vehicular access between three otherwise separated neighborhoods.

Briggs Street, Williams Street, Huntington Street and Route 32 will function as major entrance points to the local street pattern and provide direct access to the New London C.B.D. from the highway facility.



TRIANGULAR LOOP ROADWAY SYSTEM

AREA OF STUDY

The area of study extends from the Waterford Town Line to the Thames River and from the U.S. Coast Guard Academy to the Winthrop Urban Renewal Project.

Prospective highway development will occupy approximately 180 acres of urban land. The complex will develop this segment of the City into three distinct residential areas, already partly delineated by the existing I-95; these are the Broad Street neighborhood, the Bayonet Street neighborhood, and the Riverside Park neighborhood (names derived from local streets/parks for easy reference).

The Interstate 95 corridor borders the Broad and Bayonet Street neighborhoods at grade level but oversails the Riverside Park neighborhood in bridge structures. This latter neighborhood can therefore be united with the Winthrop Renewal Area and C.B.D. with meaningful planning. In effect, Route 32 provides the only north-south division in the urban pattern.

EXISTING LAND USE

The major land use within the study area is residential development of all types. The importance of maintaining the residential integrity of the area is recognized and has received commensurate consideration in this report. Within the Broad Street neighborhood, residential development is primarily of a single family nature, while the Bayonet Street neighborhood contains a mixture of scattered single family development, two family residences and apartments. In the Riverside Park neighborhood, a mixture of single and two family residences predominates in that part of the neighborhood north of the Interstate corridor. Multi-family apartment and townhouse development is found to the south primarily in the Winthrop Urban Renewal Area.

The major retail commercial usage within the study area is located parallel to the Interstate corridor in the western portions of the Broad Street and Bayonet Street neighborhoods. Convenience commercial uses are located along Williams Street, bordering the Riverside Park neighborhood and along Colman and Broad Streets within the Broad Street neighborhood.

Industrial and wholesale commercial land uses are confined to the southeastern quadrant abutting the Riverside Park neighborhood.

Public and semi-public land uses of any significance are found in the Riverside Park neighborhood and comprises the U.S. Coast Guard Academy, Riverside Park itself, and the historic Old Mill and Nathan Hale Schoolhouse site.

CHARACTER ANALYSIS OF STUDY AREA

Broad Street Neighborhood

Generally, the Broad Street neighborhood has a well established single family residential character and contains good quality development with only scattered deterioration. However, the deterioration increases with a more consistant mix of land uses and with the proximity to the C.B.D.

Neighborhood shopping facilities are scattered along Broad Street. However, most of the convenience shopping is found in the New London Shopping Plaza at the western end of the neighborhood.

Park and recreation facilities within the neighborhood are hopelessly insufficient for local resident needs.

Bayonet Street Neighborhood

The Bayonet Street neighborhood contains dispersed development of a variegated character. Single family residential development is a combination of the old and the new with the earlier homes being large and sited on small lots. The more recent residential development is more salubrious. A pocket of two family houses is strung along Hawthorne Drive. These structures are generally in good condition with a few scattered deteriorated units. The Army National Guard Armory occupies a central position in this cluster of houses and should be screened with vegetation.

The most recent residential development is the College Heights Apartments further north and is comprised of one, two, and three bedroom apartments.

There are no recreational facilities within the neighborhood and the City's present park sites are well beyond the recommended service radius for the area. In short, it is solely a dormitory neighborhood as presently conceived and lacks any sort of supportive facilities.

CONTROLLED ACCESS:
Access to frontage roads to be limited to skyways. Locations of driveways to be established during further coordination with property owners.

EXISTING LAND U
(GENERALIZED)

- RESIDENTIAL
- COMMERCIAL
- GOVERNMENTAL/INSTITUTIONAL
- INDUSTRIAL
- PUBLIC & SEMI-PUBLIC

N

THAMES

RENEWAL AREA

WINTHROP COVE

URBAN

Riverside Park Neighborhood

The Riverside Park neighborhood also has a variegated character, but is older and more compactly developed. North of the Interstate corridor, development primarily consists of single family houses of early construction sited on small lots. A small area of residential development between Adelaide and Lewis Streets has a deteriorated "twilight" character brought about by industrial uses in the area.

South of the Interstate corridor, development is a mixture of multi-family and industrial uses with Crystal Avenue serving as a boundary between the two. Much of this area is within the Winthrop Renewal Project, so development is generally of recent origin.

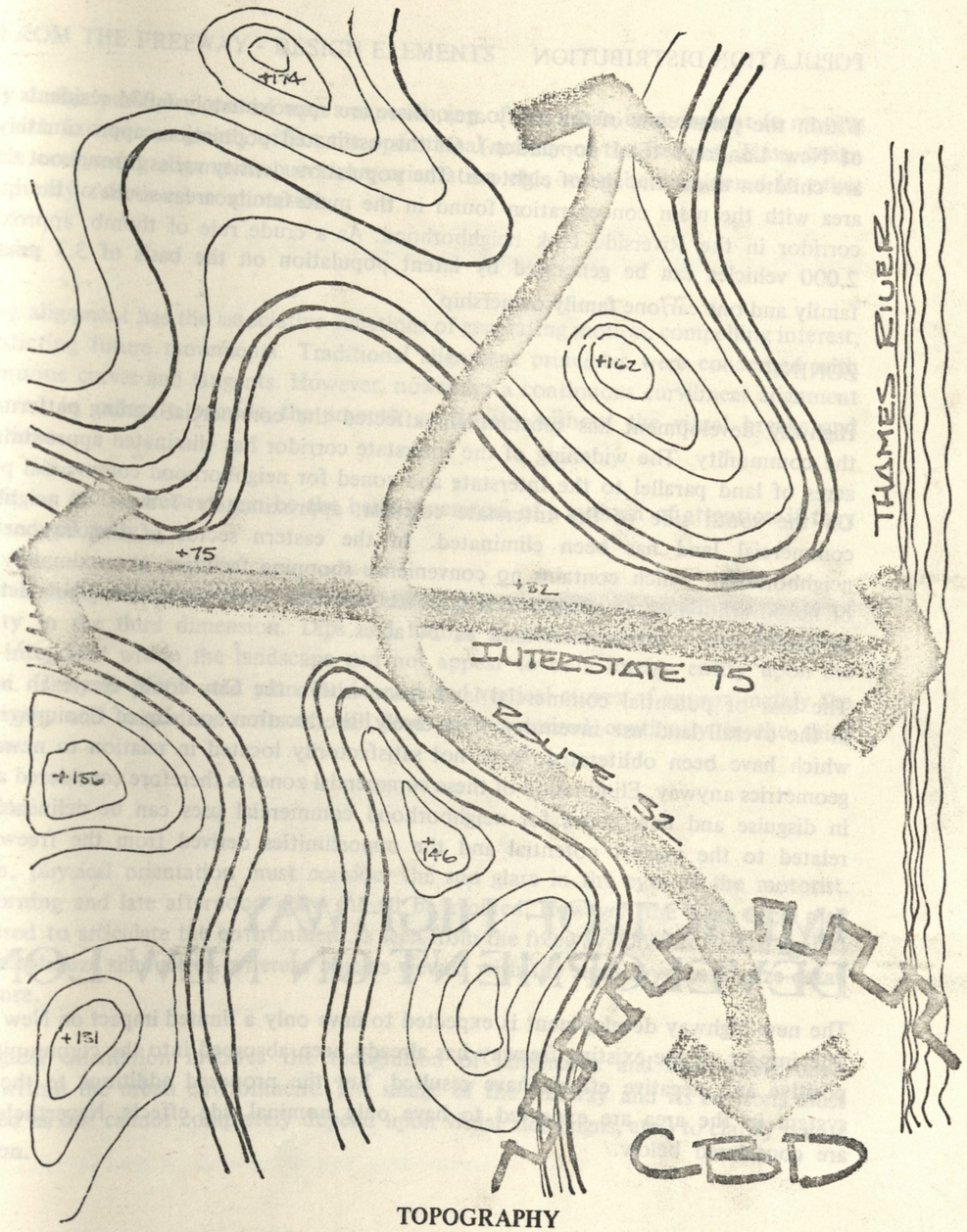
Neighborhood shopping facilities are located along Williams Street at Hodges Square and existing Main Street but are insufficient to accommodate the increased population brought about by the multi-family development.

Riverside Park is located in the northern sector of the neighborhood and functions as a community-wide passive recreation facility. There is a lack of sub-neighborhood recreation facilities close to the residential development.

The Old Mill and Nathan Hale Schoolhouse form a good nucleus for a historic park, but to date have not been adequately accentuated.

TOPOGRAPHY

In general, the topographic characteristics of the study area help to ameliorate the environmental impact of the highway development on the urban environment. The highway facility in general is confined to low-lying land. On the north and south side of the Interstate 95 corridor, the residential development rises to a peak elevation of about 150 feet above Mean Sea Level; about 70 feet above the highway elevation. The location and geometry of the total interchange appears to have been definitively designed along the lower reaches of the slopes and in the case of Route 32, on marshy and unbuildable lands. The interchange has been developed in the swale of low lying land between these residential peaks. A finger of residentially developed low-lying land, along Ledyard Street separates these residential nodes.



TOPOGRAPHY

POPULATION DISTRIBUTION

Within the parameters of the study area, there are approximately 6,034 residents (or 20% of New London's total population). Of this estimated population, approximately 1,882 are children under the age of eighteen. The population density varies throughout the study area with the main concentration found in the multi-family areas south of the interstate corridor in the Riverside Park neighborhood. As a crude rule of thumb, approximately 2,000 vehicles can be generated by latent population on the basis of 3.3 persons per family and one car/one family ownership.

ZONING

Highway development has substantially affected the commercial zoning patterns within the community. The widening of the Interstate corridor has eliminated approximately 12 acres of land parallel to the Interstate and zoned for neighborhood commercial purposes. On the south side of the Interstate corridor, approximately 7 acres of neighborhood commercial land has been eliminated. In the eastern sector of the Bayonet Street neighborhood, which contains no convenience shopping facilities, approximately 5 acres of neighborhood commercial zoned land has similarly been wiped out, giving a total loss of neighborhood commercial land as 24 acres.

The loss of potential commercial land space within the City could create an imbalance in the overall land use inventory. Conversely, the location and size of Commercial Zones which have been obliterated, were not satisfactorily located in relation to new freeway geometrics anyway. Elimination of these commercial zones is therefore considered a blessing in disguise and new zones for neighborhood commercial uses can be delineated better related to the market potential and the opportunities derived from the freeways.

IMPACT OF HIGHWAY DEVELOPMENT ON NEW LONDON

The new highway development is expected to have only a limited impact on New London. The impact of the existing freeway has already been absorbed into the community. Some positive and negative effects have resulted, but the proposed additions to the freeway system in the area are expected to have only nominal side effects. Nevertheless, these are considered below.

SOCIOLOGICAL IMPACT

The community and neighborhood social needs affected by highway development can be viewed in terms of the physical (facilities and services) and the psychological (mobility, identity, opportunity).

Social needs of a physical nature are not outwardly affected by the upgrading of Interstate 95 as this development basically retains the physical characteristics of the area already established by the freeway. However, the construction of Route 32 as a limited access highway will have some effects on the community and neighborhood social patterns.

The Route 32 development forms a physical barrier in the residential fabric of this sector of the City, disrupting somewhat the previous interaction between the Bayonet Street and Riverside Park Neighborhoods. This social interaction was limited to begin with. The Bayonet Street Neighborhood depended upon the recreational, schooling, and convenience shopping facilities and services located within the Riverside Park Neighborhood. Now, vehicular access to these services and facilities from the Bayonet Street Neighborhood, although efficient, will be circuitous via the previously mentioned loop road system created by Briggs, Williams and Vauxhall Streets. Potential pedestrian access between these neighborhoods has virtually been eliminated.

Social needs of a psychological nature are more difficult to determine as they involve intangible human values which are not constants.

Human responses and values that are commonly affected by urban highway development and which could become indirect costs to the City are as follows:

1. A sense of community belonging.
2. Personal identity and recognition.
3. Territoriality - identification with a bounded turf or neighborhood.
4. A compatible and fully serviced neighborhood.
5. Personal stability and security - a lack of anxiety.

The social values of territoriality and a sense of community belonging have already been stifled by the I-95 freeway isolation of the Bayonet Street and upper Riverside Park Neighborhoods. Other consequences of urban highway development that are too early to determine may include job losses because of residential, business or industrial dislocation, increased travel times within the local circulation system and their associative costs.

ECONOMIC IMPACT

The primary effect that the highway development has (and will have) on the New London economy is the erosion of the City's tax base through the acquisition and sterilization of revenue producing real estate.

New London has about six square miles of land area and is almost totally developed today. About 55% of its land area is occupied by tax exempt land holdings. The total highway development studied occupies 5.2% of the City's land area (about 180 acres) and will have eliminated approximately $200,000 of City revenue from real estate taxes each year.

"Holding Costs", associated with the early acquisition of land for highway development also can effect the community's economy. "Holding Costs" are made up of three components: lost property taxes, capital costs, and maintenance costs. The first two cost components can effect a community's economy, while the third cost is the burden to be borne by the buyer. Lost property taxes are an economic cost during the time the land lies fallow, while capital costs are the interest foregone on substantial sums invested in the property acquired for highway development.

Recent studies throughout the country indicate that there is no significant association between the proximity of highway development and the yearly change in residential property values. Analysis indicates that negative highway environmental factors (noise, vibration, odor, lights, etc.) do not necessarily cause a decrease in the yearly change in the sale price of homes adjacent to a highway. In fact, many homeowners adjacent to the highway desired the privacy afforded by this "impersonal neighbor".

Highway development can also have a positive effect on the City's economy. Increased accessibility provided by highway development will increase the value of adjacent commercial and industrial lands.

ENVIRONMENTAL IMPACT

Environmental factors and values concerning the freeway and its environs must be considered from two distinct viewpoints. First, the outward view *from the freeway* and the effect of the environment upon its quality of operation, and second, the inward view *from the environs* and the effect of the freeway upon its form, function, and quality. Basically, these views tend to be different by nature and must be considered with the purpose of coordinating or at least preventing their conflict with each other in order to provide for a harmonious environment.

VIEW FROM THE FREEWAY - DESIGN ELEMENTS

Freeway design principles control man's experiencing of the urban environment (a moving view) which in turn can greatly effect the operational quality of the freeway. Thus, design principles concerning alignment, curvature, orientation etc., must be considered in other than a purely functional connotation.

Geometrics

Roadway alignment has the associative functions of generating motion, compelling interest, and predicting future movements. Traditional alignment principles were concerned with discontinuous curves and tangents. However, nowadays a continuous curvilinear alignment is preferred in order to provide the smooth continuity without the visual breaks and interruptions.

The environs of the freeway can be the basic generators of a rythmn of attention if they are utilized properly.

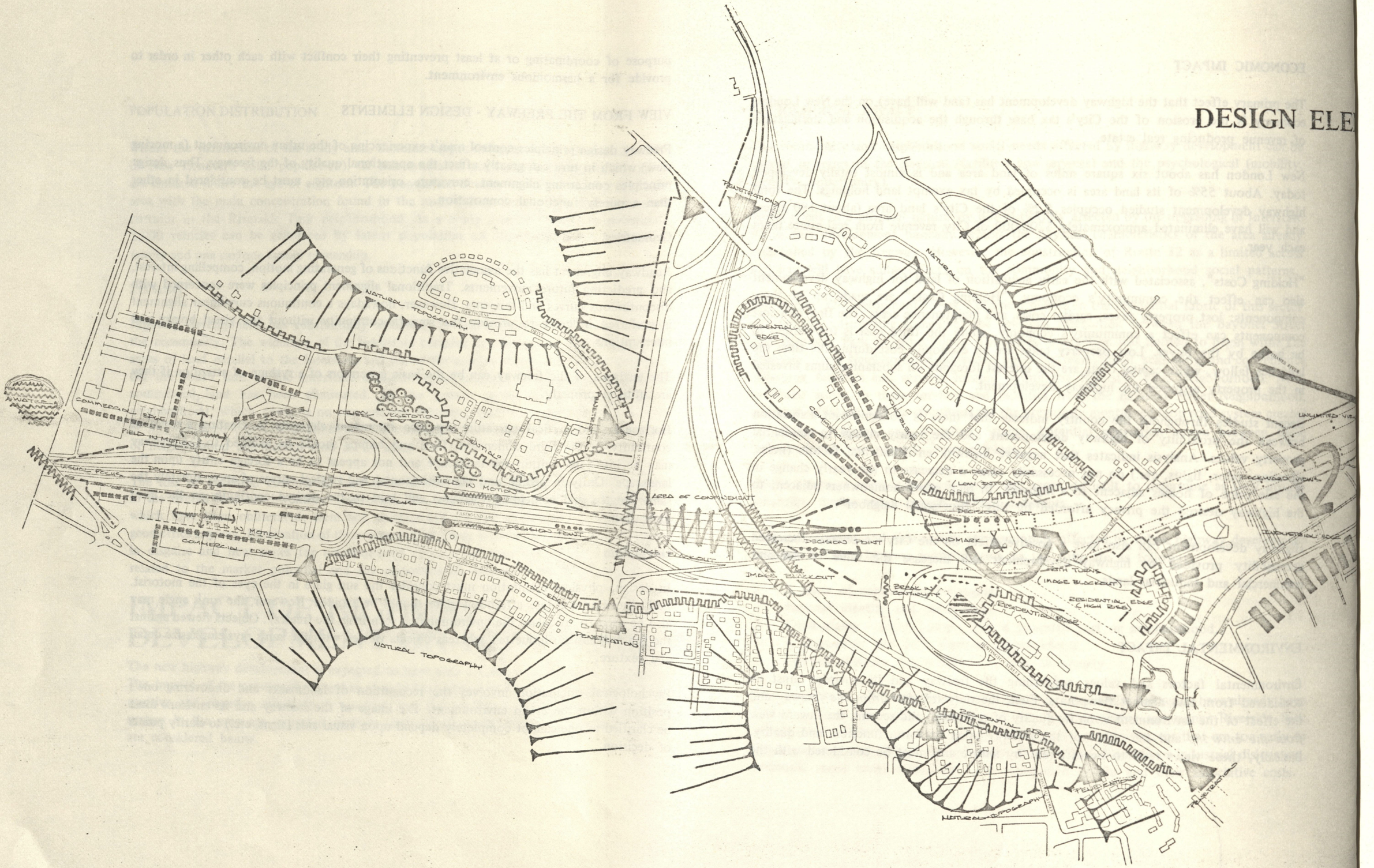
Horizontal and vertical curvature are also important elements in creating a sense of continuity in the third dimension. Dips and humps should be avoided so the freeway may be integrated within the landscape and not appear to be a foreign entity upon the landscape. Unity in profile and plan (horizontal and vertical curves of approximately the same length, and coinciding vertexes) will lead to the desired continuity in the third dimension.

Orientation

In design, physical orientation must consider the sun glare in the eyes of the motorist. Early morning and late afternoon glare should be avoided. However, the sun's angle may also be used to articulate the environment as seen from the freeway. Objects viewed against the sun emphasize silhouettes, whereas objects viewed with the sun's rays emphasize detail and texture.

Psychological orientation involves the recognition of landmarks and discovering one's position within the urban environment. The image of the freeway and its environs must be clarified as one cannot completely depend upon visual aids (signs, etc.) to clarify points of decision.

DESIGN ELE


NATURAL TOPOGRAPHY
COMMERCIAL EDGE
FIELD IN MOTION
VISUAL FOCUS
DECISION POINT
PENETRATION
RESIDENTIAL EDGE
AREA OF CONTAINMENT
IMAGE BLACKOUT
LANDMARK
INDUSTRIAL EDGE
BREAK IN CONTINUITY
VEGETATION

The Night Environment

At night new forms and textures are given to the environment. Nighttime experiencing of the freeway and its environs may be strengthened through the use of artificial lighting. Light is needed for circulation as it defines the roadway network. However, artificial lighting can inherit more sensitive application in the articulation of the nighttime environment. Freeway lighting does not necessarily have to produce a uniform, harsh glare in order to function as a directional indicator. A variation in lighting and types of lighting may be used to direct attention at points of decision.

Summary

The design plans of this freeway system are considered to be of the highest calibre. The geometrics of design are tailored to the site as far as possible. With streamline contouring, landforms and judicious landscaping, the freeway complex may be far less obtrusive than at the present and may be made to effectively blend into the townscape with minimal detriment to surrounding development.

AROUND THE FREEWAY

There are various environmental factors that must be considered concerning the impact of the freeway on the form, function, and quality of its environs. The impact of the freeway may alter the suitability of adjacent development, proposed or existing, and thus, these factors and the value placed on them must be considered in order to create a harmonious urban environment.

The findings of a recent study* on the impact of freeways on the environment indicate the following:

The most objectionable highway disturbance is the sound produced by trucks.

The lack of proper right-of-way maintenance was the second most objectionable highway annoyance.

A limited access highway does not devaluate adjacent property.

The presence of the freeway is more readily acceptable if concealed from view by proper landscaping.

Values relating to highway disturbance factors vary greatly.

* *Effect of Highway Landscape Development on Nearby Property* - National Cooperative Highway Research Program Report 75, Highway Research Board,1969

Highway depression is potentially the greatest single reducer of sound level.

Sound disturbance at high-rise apartment buildings located near freeways is highly objectionable.

Recommended Remedial Actions

Depress highways wherever possible.

Improve the design of tires and mufflers to reduce noise from trucks at the source.

Buffer properties from adjacent highways and vegetation and land forms and

Maintain the highway right-of-way comparable to that of adjacent property.

Pollution

The three basic pollutants created by the motor vehicle that must be considered with respect to the suitability of adjacent development are gases, toxic particles, and noise.

Carbon Monoxide Pollution

Gaseous pollution is basically found in the form of carbon monoxide expelled in vehicle exhaust. This form of gas is tasteless, colorless and odorless and can have a harmful effect on human life as it is absorbed by the blood at a rate 300 times faster than the oxygen it displaces.

Carbon monoxide is insoluable in water and must be dispersed in large volumes of air: e.g. wind increases the rate of dispersion.

In general, it has been found that the carbon monoxide level found at roadway level (100%) may be reduced to an ambient pollution level (0%) at a distance of 160 feet from the edge of the roadway.

Toxic Particle Pollution

Toxic particles expelled from vehicle exhausts are the latest form of vehicular pollution of public concern as emphasized by the national goal toward the use of unleaded gasolines. Lead particles, transmitted through prevailing winds, have been found in toxic quantities in plant life and water sources located near freeways.

Careful consideration must be given to the placement and selected specimens of plant life including consumer produce (market gardens) and public water resources near highway development. Fortunately, these factors are not a consideration at present, but landscaping along the freeway must be carefully selected to survive freeway conditions and the effects of freeway pollutants and salt spray in particular.

Noise Pollution

The effects of noise, as a pollutant, on development near freeways is the most serious problem in New London. It has the following parameters:

The human sound disturbance threshold
The level of sound produced at the freeway
The variables affecting the transmission of freeway sound, i.e., distance, land forms and landscaping.

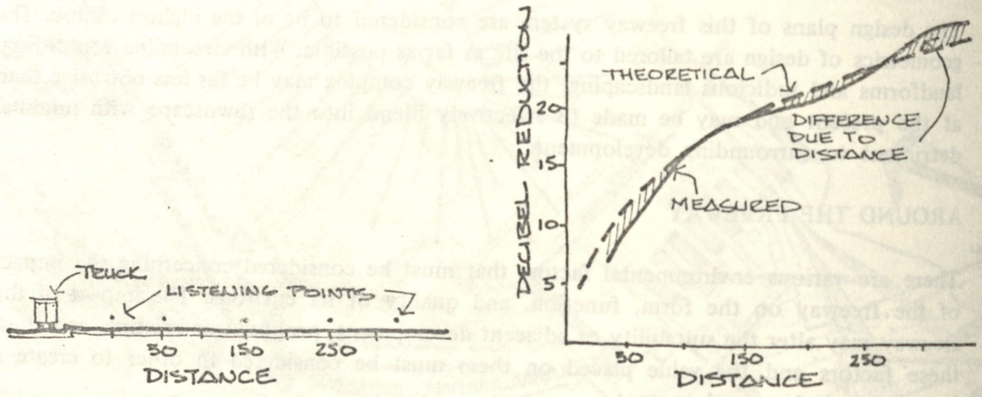
Due to the limited scope of this study, on-site research and experiments concerning the above parameters were not feasible. Therefore, the findings of a study conducted by the Franklin Institute Research Laboratories* concerning the effect of highway development on adjacent properties were utilized. Research involved physical disturbance, landscape/landform, economic and interview experimental measures and the necessary analysis conducted on the collected data.

The study was done on a nationwide basis on highway development basically of a similar nature to that of the Interstate 95 corridor. Resulting facts and figures of this study therefore are considered pertinent to conditions around the Interstate 95 corridor.

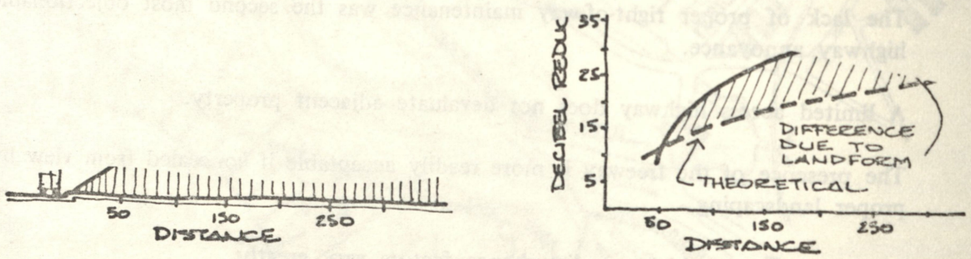
Freeway noise becomes an environmental pollutant when it's level of intensity approaches the human sound disturbance threshold, about 68 decibels. However, various natural buffers can be utilized to reduce the impact of freeway noise on adjacent development.

Distance is perhaps the simplest natural buffer affecting sound transmission. In a flat open area, freeway noise will be dissipated to a level not disturbing to the human ear at a distance of approximately 280 feet from the highway's edge. However, the Interstate 95 corridor passes through New London in a relatively low-lying valley section and thus, the effects of various natural landforms on sound transmission must be considered.

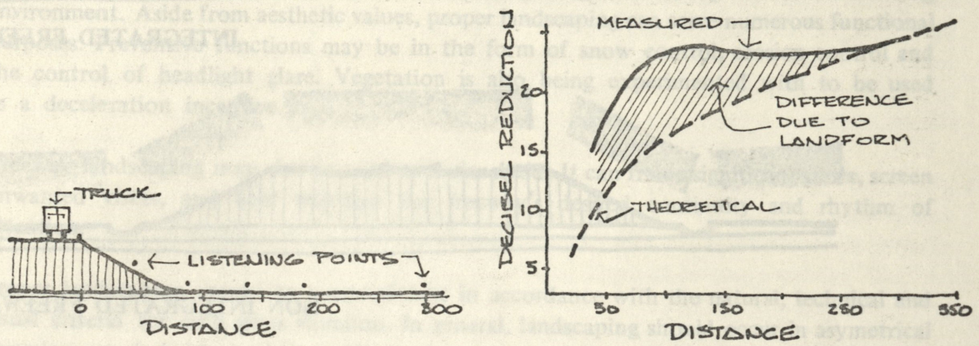
The land forms created about a depressed freeway can have a decided effect on sound transmission; but only when these land forms remove the listening point from the line of sound. A steep rise in the land adjacent to the freeway acts as a natural sound buffer, as it reflects sound waves and allows them to pass over the listening point. With approximately a 30 foot difference in elevation this particular land form will dissipate freeway noise to a tolerable level at a distance of about 125 feet from the freeway. However, if the upward slope of the adjacent land is gradual, sound reduction to a tolerable level will occur at about 280 feet from the freeway. Thus, this gradual land form has no greater sound reduction potential than flat land or distance alone.



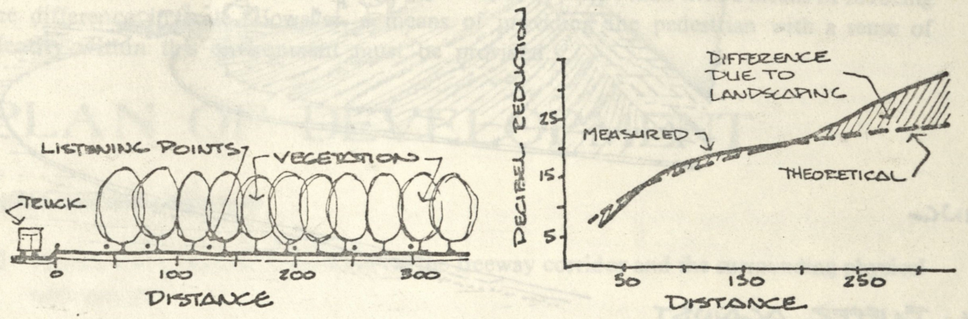
FREEWAY AT GRADE DISTANCE FACTOR ONLY



FREEWAY AT CUT



FREEWAY IN ELEVATION



VEGETATION SCREEN

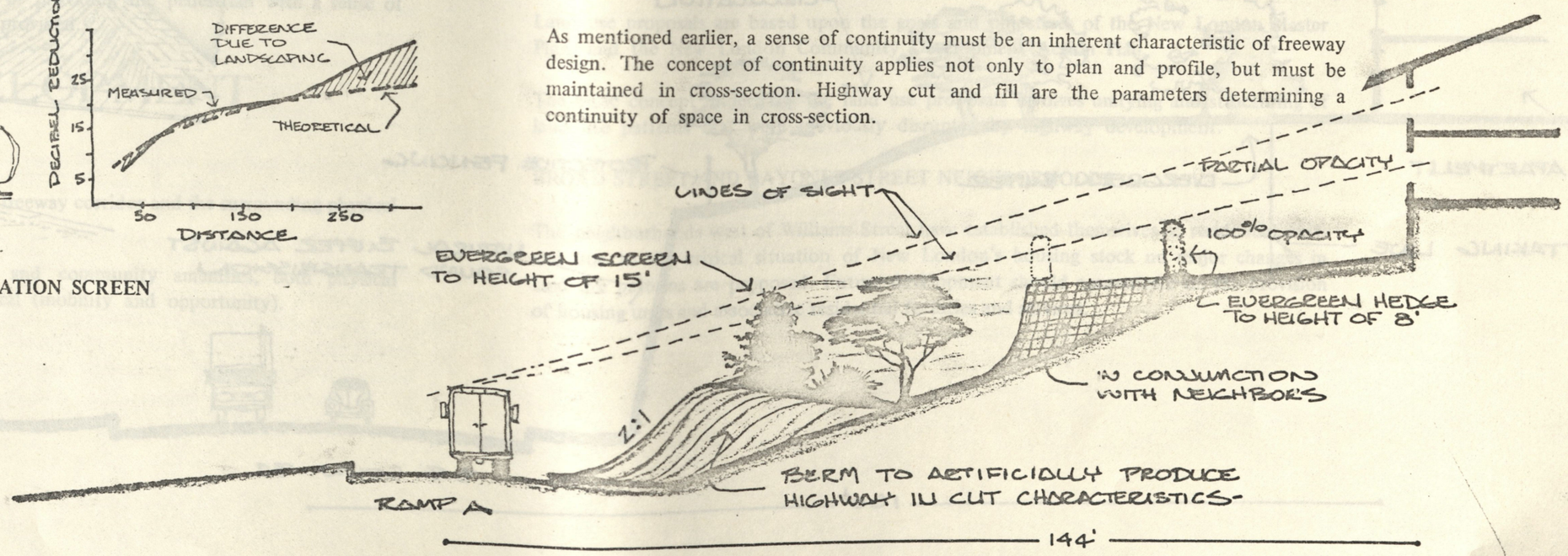
The landform created by an elevated freeway has little or no sound reduction potential other than that attributed to distance alone. A steep downward slope from the highway does have initial sound reduction potential at the base of the slope as the freeway noise emitted passes over the listening point. However, if the highway is elevated on structure, this initial sound reduction potential is eliminated due to an echo effect and additional noise transmitted through the structure.

The use of landscaping as a natural sound buffer is inconsequential at short distances from the highway. At 200 feet from the edge of the freeway dense trees do not reduce the noise level any greater than the distance alone would have. However, a sharp sound reduction is found at greater distances than 200 feet, but is limited in use due to the fact that highway rights-of-way rarely encompass these distances.

Where natural changes in land form do not produce the needed reduction in noise level, artificial means can be utilized as a buffer. Solid fencing or walls can be used to remove the listening point from the line of sound, but become foreign elements in the environment and can present a traffic hazard. Earth mounds or berms present a better alternative as a sound reduction buffer as they can be blended into the existing land characteristics, while removing the listening point from the line of sound.

Continuity of Cross Section

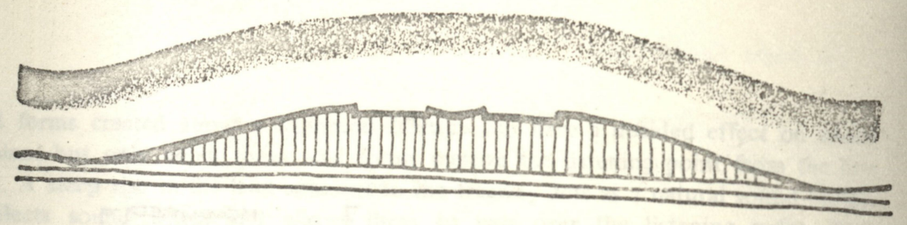
As mentioned earlier, a sense of continuity must be an inherent characteristic of freeway design. The concept of continuity applies not only to plan and profile, but must be maintained in cross-section. Highway cut and fill are the parameters determining a continuity of space in cross-section.



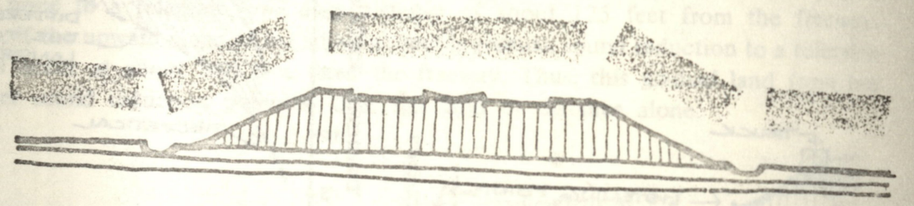
A fragmented cross section will only enforce the image of the freeway as a foreign element placed within the environment and produce visual disassociation. Careful consideration must be given to the degree of slope and the shape of embankment if the highway is to be integrated into the surrounding environment.

Steep embankments and side slopes, when used in cut and fill up to twenty feet, easily become visual barriers. Above twenty feet a steep slope may be visually compatible with the scale of the necessary earthwork.

The shape and form of embankments does not have to be uniform. A varied slope and the warping or rounding of the edges of the slope can produce continuity by preserving the natural flow of the environment.

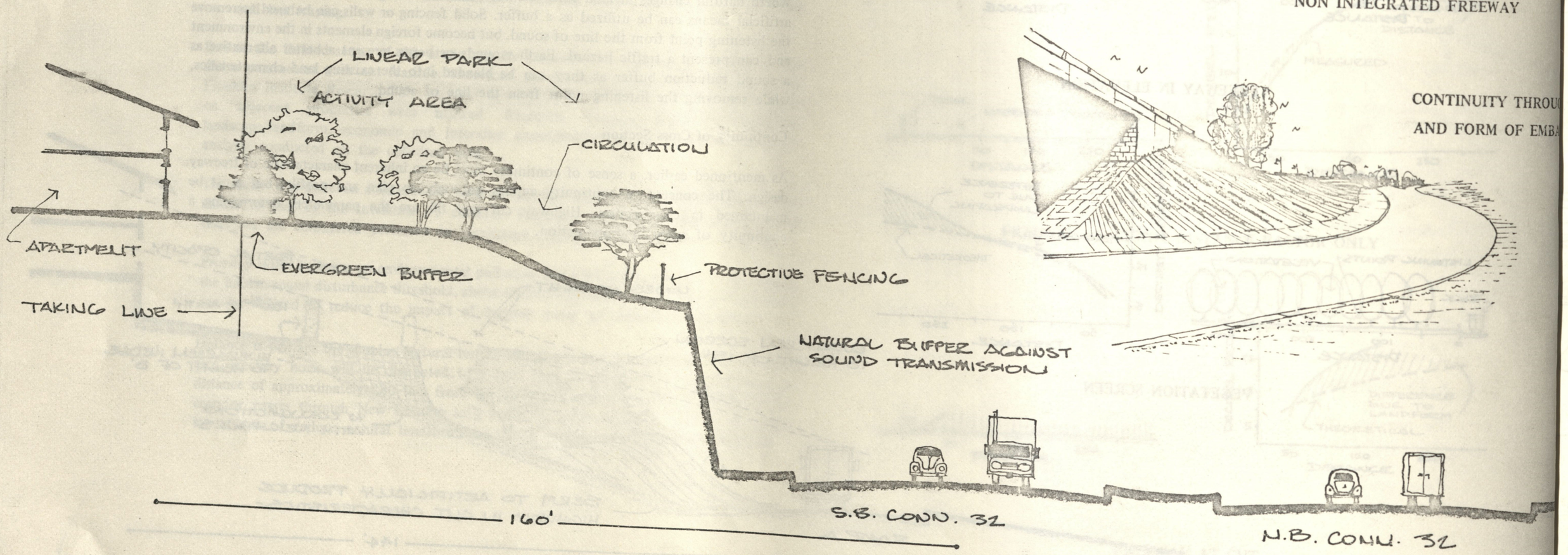


INTEGRATED FREEWAY



NON INTEGRATED FREEWAY

CONTINUITY THROUG
AND FORM OF EMBA



Freeway Landscaping

Freeway landscaping should not take on the character of a supplementary freeway design element. Rather, it should provide a means of integrating the freeway with its surrounding environment. Aside from aesthetic values, proper landscaping can serve numerous functional purposes. Preventive functions may be in the form of snow control, erosion control and the control of headlight glare. Vegetation is also being experimented with to be used as a deceleration incentive.

Freeway landscaping may also be used as a visual aid. It can frame significant views, screen unwanted vistas, and help maintain the freeway's desired continuity and rhythm of attention.

Proper landscaping should be accomplished in accordance with the natural, technical and visual criteria for each given situation. In general, landscaping should occur in asymetrical groupings as individual plants will not be viewed as an entity at freeway speeds and symetrical planting tends to be monotonous.

Scale

The relationship between the scale of man and the freeway must not be overlooked. The automobile's personal control and capacity for speed provide man with a means of reducing the difference in scale. However, a means of providing the pedestrian with a sense of identity within this environment must be provided.

PLAN OF DEVELOPMENT

Basic Goals and Objectives

- Provide for a smooth integration of the freeway corridor and the surrounding physical environment.
- Maintain and improve neighborhood and community amenities, both physical (facilities and services) and psychological (mobility and opportunity).
- Provide the opportunity for land sterilized by highway development to contribute productively to New London's economy through redevelopment.
- Unify existing land use patterns fractionalized by highway development.
- Restructure zoning patterns disrupted by highway development in order to maintain a balance in New London's commercial structure.
- Maintain the integrity of the highway system.

The proposed Plan of Development incorporates the analysis of the impact of the highway development on the New London Community, and present and future community patterns as expressed by related plans and programs of various municipal and private groups within the Community. Recommendations are set forth involving the utilization of land acquired for highway development in order to retain and upgrade the integrity of the New London environment and economy.

The basic concept of the Plan of Development is set forth in a Proposed Land Use Plan, while the specific details of development are analyzed on a sector by sector basis.

PROPOSED LAND USE PLAN

Land use proposals are based upon the goals and objectives of the New London Master Plan, and the New London Community Development Action Plan.

The basic concept underlying the land use proposals involves unifying and structuring of land use patterns that were previously disrupted by highway development.

BROAD STREET AND BAYONET STREET NEIGHBORHOODS

The neighborhoods west of Williams Street have established themselves as residential units and due to the critical situation of New London's housing stock no major changes in land use patterns are proposed. Future development should concentrate on the provision of housing units and associative residential facilities and services.

PROPOSED LAN
(GENERALIZED)

INDUSTRIAL
COMMERCIAL
PUBLIC & SEMI-PUBLIC

N

THAMES

WINTHROP URBAN RENEWAL AREA

WINTHROP COVE

CONTROLLED ACCESS:
Access to frontage roads to be limited to driveways. Locations of driveways to be established during design coordination with property owners.

In the Broad Street Neighborhood it is recommended that the abutting highway right-of-way be developed as a multi-functional linear park providing a variety of recreation and open space opportunities. Careful landscape design can create a basic theme throughout the park and provide a neighborhood green belt linkage, passive activity areas, and visual screening. Sub neighborhood or "vest pocket" parks should be created within the linear park to help eliminate the recreational deficiency indicated in the Community Development Action Plan. Care in the choice of playground equipment can create a variety of motifs and provide each activity area with its own personality.

In the Bayonet Street Neighborhood it is recommended that the highway right-of-way be utilized for passive open space and visual screening purposes. Land use proposals basically coincide with the policies set forth by the Master Plan. It is recommended that the undeveloped area at the intersection of the Colman Street extention and Bayonet Street be utilized for commercial purposes (i.e. motel, retail sales, etc.).

RIVERSIDE PARK NEIGHBORHOOD

As the highway development bisects the Riverside Park Neighborhood in structure, land use proposals represent a unifying of existing land use patterns through the utilization of highway lands for development purposes.

Heavy industrial development is proposed for that area between the Central Vermont Railroad lines and the Thames Riverfront. It is felt that through this type of development, full economic, land use, and freighting facility potentials can be achieved. A direct benefit of development in this area would be the opening up of the river frontage to the north that is presently confined by the restrictions of at-grade railroad crossings.

A public boat launching facility is also proposed for the above area and should upgrade the facilities and services offered by the existing public launching area.

Industrial land uses are proposed for the highway right-of-way extending east from Crystal Avenue to the Central Vermont Railroad tracks. It is also recommended that the area north of the right-of-way which is primarily zoned for industrial use, be developed for industry in conjunction with the highway land. Tight industrial development in these areas will unify the existing land use patterns by structuring the twilight area between the Thames Valley Steel Company and the existing industrial uses in the Winthrop Urban Renewal Area. The twilight character of this area has been created through a mixture of residential and industrial land uses. Proper industrial development will provide the opportunity of creating a structured buffer strip between industrial development and the residential uses along Crystal Avenue and Adelaide Street. The natural land form, change in elevation, found in this area should be utilized in creating this buffer strip. Recommendations have also been set forth for the closing of portions of Eastern and Central Avenues in order to segregate industrial and residential type traffic.

As indicated in the Winthrop Urban Renewal Plan, Crystal Avenue has been retained as the definer between residential and industrial types of development. Residential related land uses have been proposed for that highway land under the structure from Crystal Avenue to Williams Street.

A transitional use of service commercial development has been proposed for that area abutting Crystal Avenue. Such a use shall provide service amenities to the adjacent residential development and shall accommodate "fringe Central Business District" type uses.

The creation of a historic complex is recommended to be developed around the existing Old Mill and Nathan Hale Schoolhouse sites. Two or three structures of historic or architectural significance could be relocated within this area with pathways and appropriate landscaping integrating the old and the "new".

Neighborhood commercial usage is proposed for that area between the relocated Main and Williams Streets. In conjunction with the Hodges Square retail establishments, it will provide an excellent walk-in convenience center for area residents. This proposed usage will supplement the areas designated for neighborhood commercial usage in the Winthrop Urban Renewal Plan and Zoning Ordinance that were eliminated through highway improvements.

The linear strip of highway land that abutts the southern half of relocated Main Street is proposed for a public open space use and will provide the vital linkage between the open space and recreation facilities within the area. It is recommended that the open channel proposed to handle storm drainage be eliminated for reasons of public health and safety and that the North and South Conduits be extended to Crystal Avenue. Through the use of land fill and landscaping, this strip of land can complete an open space and

pedestrian system linking the proposed Winthrop Urban Renewal park/recreation facility and the Thamesview I apartment complex to the proposed open space and convenience commercial uses located under the highway structure.

The recommendation that the property of the Church of Our Lady of Perpetual Help be acquired in total has been proposed due to consequential damages created by highway development. It is also recommended that the land retain its public or semi-public character, but be utilized for supportive and recreational uses for the surrounding medium density residential development. The church proper is in good structural condition and could be converted for a community center use with a minimum rehabilitation effort.

HIGHWAY INTERCHANGE DEVELOPMENT

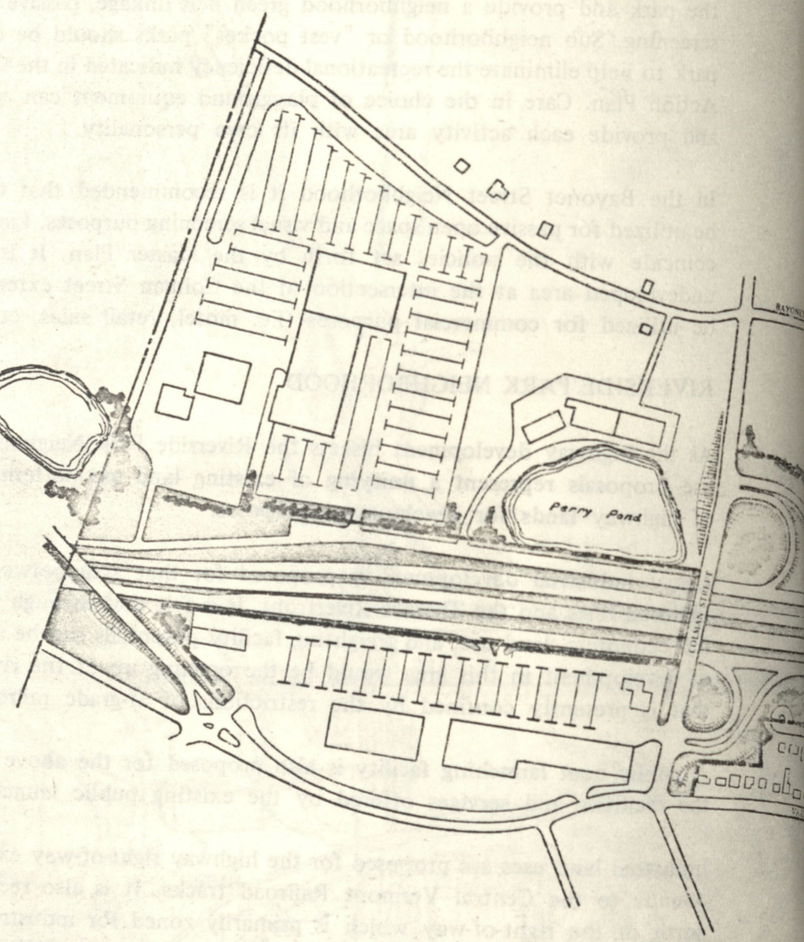
Industrial land uses have been proposed for two highway infield areas within the Interstate 95 - Route 32 interchange. The areas in question are composed of the interior of circular Ramp F and the infield area between the Route 32 Connector and the westbound segment of Interstate 95. These areas would have to be developed in conjunction with one another as access would only be available via a tunnel connection at an extention of New Street. Access between the two areas would also be via a tunnel connection.

The utilization of this land for industrial development would provide for new potential within New London's limited industrial land supply.

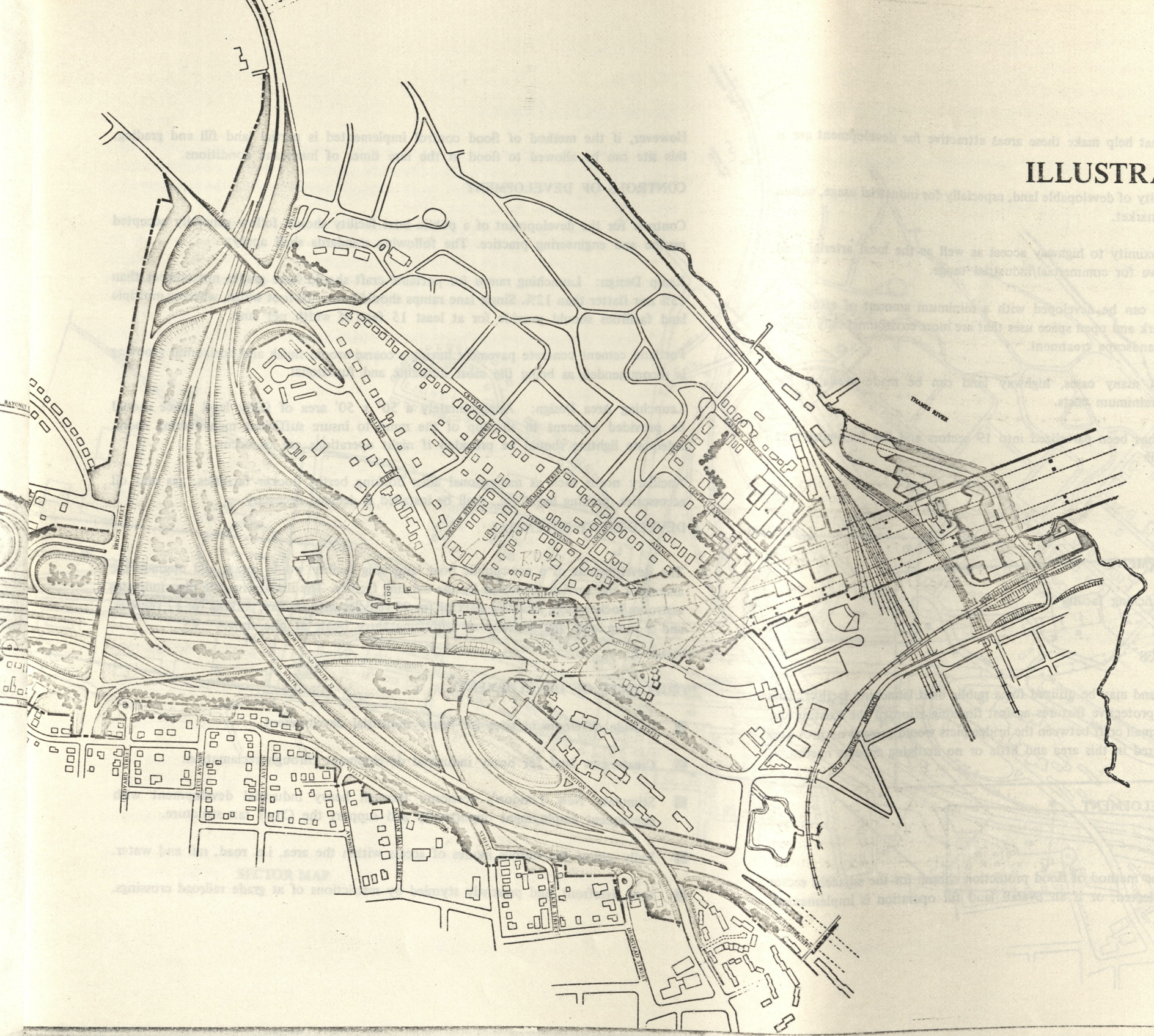
As the land is segregated from the surrounding land uses by the highway structure, the proposed land use will not create any conflicts within the existing land use pattern nor promote any environment deficiencies.

LAND AVAILABLE FOR DEVELOPMENT

Within the 180 acres comprising the highway development, approximately 45 acres of land have been identified as having development potential. Of this total acreage, approximately 17 acres has development potential for the private sector of the community, while the remaining area has been designated for public or semi-public use (parks, open space, etc.) due to land formations or its position within the community land use pattern.



ILLUSTRATIVE SITE PLAN



Some of the characteristics that help make these areas attractive for development are as follows:

Demand - there is a scarcity of developable land, especially for industrial usage, within the New London land market.

Location - the land's proximity to highway access as well as the local arterial road system makes it attractive for commercial/industrial usage.

Viability - highway land can be developed with a minimum amount of effort for public and semi-public park and open space uses that are more environmentally viable than ordinary highway landscape treatment.

Development Costs - In many cases, highway land can be made available for development at low or minimum costs.

Potentially developable land has been parcelized into 19 sectors and the following text considers each sector in detail.

SECTOR ANALYSIS

Sector 1

OBJECTIVES OF DEVELOPMENT

- Provide public boat launching facility

SECTOR CHARACTERISTICS

Approximately one acre of land may be utilized for a public boat launching facility. This area should retain the same protective features against flooding afforded the existing site (Sector 2) and navigation by small craft between the bridge piers would present no problem. The water is relatively sheltered in this area and little or no dredging appears necessary.

PREREQUISITES TO DEVELOPMENT

Flood Protection

The site must conform to the method of flood protection chosen for the adjacent sector if a revetment method is selected, or if an overall land fill operation is implemented.

However, if the method of flood control implemented is partial land fill and grading, this site can be allowed to flood at the rare times of hurricane conditions.

CONTROLS OF DEVELOPMENT

Controls for the development of a public boat facility should follow generally accepted marine and engineering practice. The following standards shall apply:

Ramp Design: Launching ramps for portable craft should have grades not steeper than 15% nor flatter than 12%. Single lane ramps should have a 20 foot width, whereas multiple land facilities should provide for at least 15 feet of width per lane.

Portland cement concrete pavement having a coarse broom finish and horizontal grooving is recommended as being the most desirable and functional.

Launching Area Design: Approximately a 50' x 50' area of fairly level space should be provided adjacent to the top of the ramp to insure sufficient maneuvering room. Adequate lighting should be provided if night operations are to occur.

Ancillary needs such as navigational aids, docking berths, locker facilities, gas and oil accessories, parking bays, etc., shall be installed as deemed necessary.

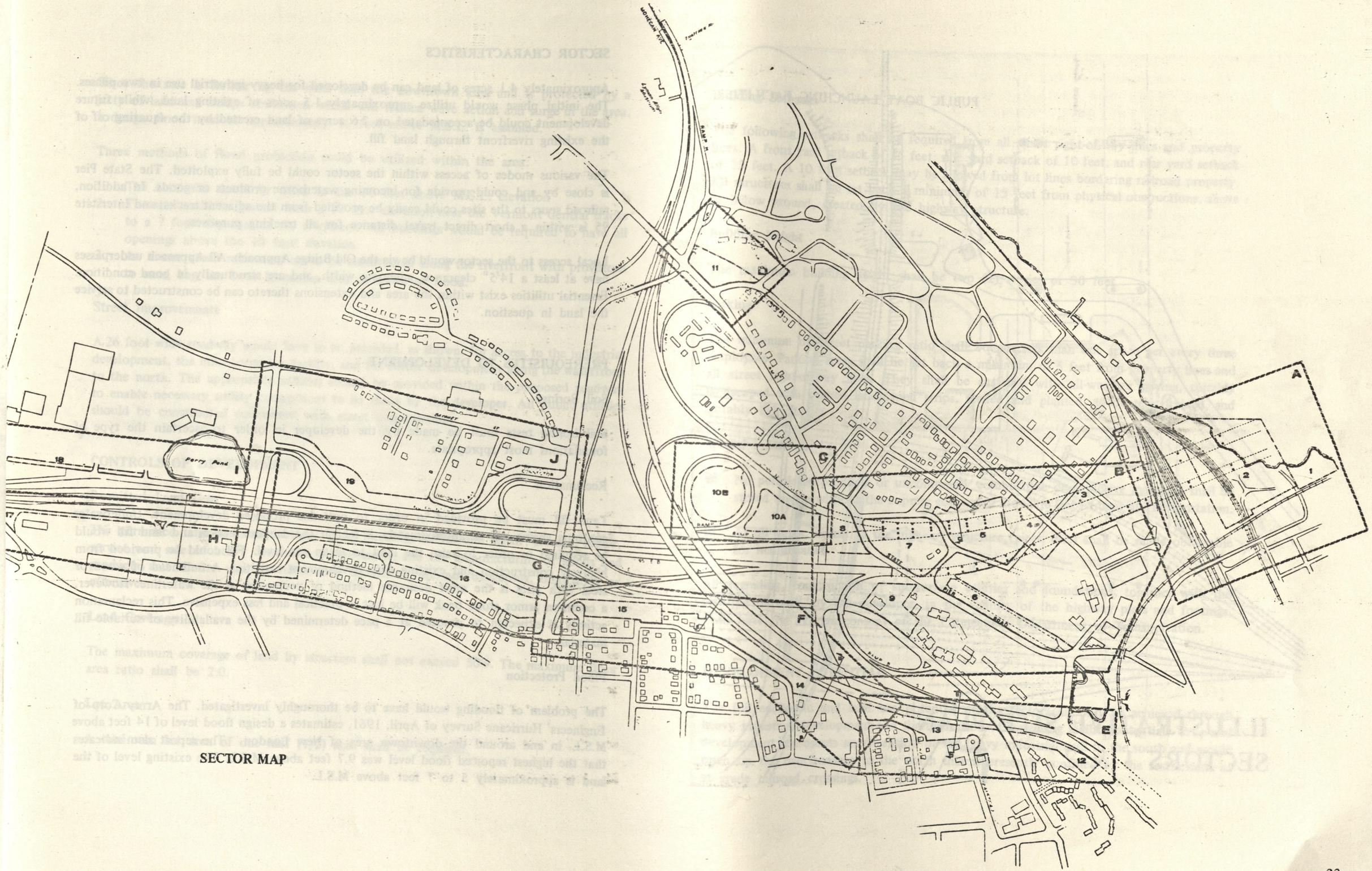
DEVELOPMENT POTENTIAL

The development of a new public boat launching facility would retain and upgrade the amenities and services provided by the existing facility. The illustrative site plan indicates restroom/locker-room facilities, parking for 25 vehicles with trailers, parking for 17 vehicles, and a ramp with the capacity of launching three boats at one time.

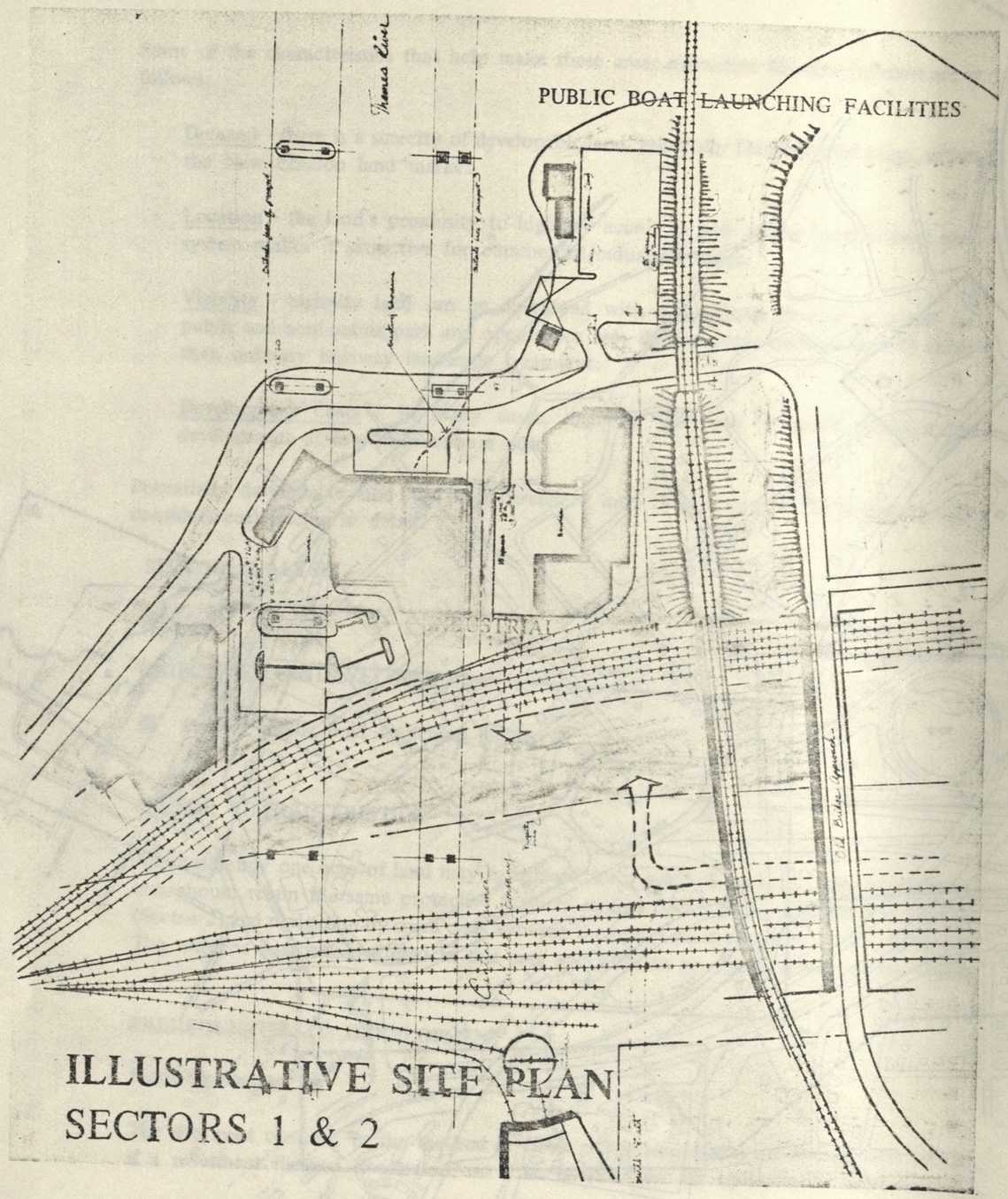
Sector 2

OBJECTIVES OF DEVELOPMENT

- Provide development sites for heavy industrial development
- Create new land for heavy industrial development through reclamation.
- Stimulate New London's economy through heavy industrial development with consequent employment opportunity and support the City's tax structure.
- Fully utilize the various modes of access within the area, i.e. road, rail and water.
- Free riverfront land presently stymied by restrictions of at grade railroad crossings.


MONTEREY AVE.
RAMP H
RAMP I
RAMP J
RAMP K
RAMP L
RAMP M
RAMP N
RAMP O
RAMP P
RAMP Q
RAMP R
RAMP S
RAMP T
RAMP U
RAMP V
RAMP W
RAMP X
RAMP Y
RAMP Z
BARNETT ST.
CONNECTOR
Perry Pond
STATE PIER ROAD
A
B
C
D
E
F
G
H
I
J
1
2
3
4
5
6
7
8
9
10A
10B
11
12
13
14
15
16
17
18

SECTOR MAP



ILLUSTRATIVE SITE PLAN
SECTORS 1 & 2

SECTOR CHARACTERISTICS

Approximately 4.1 acres of land can be developed for heavy industrial use in two phases. The initial phase would utilize approximately 1.5 acres of existing land, while future development could be accomodated on 2.6 acres of land created by the squaring off of the existing riverfront through land fill.

The various modes of access within the sector could be fully exploited. The State Pier is close by and could provide for incoming waterborne products or goods. In addition, railroad spurs to the sites could easily be provided from the adjacent tracks; and Interstate 95 is within a short direct travel distance for all trucking purposes.

Local access to the sector would be via the Old Bridge Approach. All Approach underpasses have at least a 14'5" clearance, adequate width, and are structurally in good condition. Essential utilities exist within the area and extensions thereto can be constructed to service the land in question.

PREREQUISITES TO DEVELOPMENT

Soil Borings

Soil boring tests must be made by the developer in order to ascertain the type of foundations most appropriate.

Reclamation

Land fill must be provided in order to optimize proposed development. Underwater contours shelve off to approximately 8 feet at the deepest section and land fill would be required in order to raise the land to mean sea level. Fill could be provided from highway construction and existing City development activities. A bulkhead of wood or steel with piles is the most desirable method of protection at the waterline. However, a common armor stone bank will be just as practical and less expensive. This reclamation activity is expected to proceed at a pace determined by the availability of suitable fill material.

Flood Protection

The problem of flooding would have to be thoroughly investigated. The Army Corp of Engineers' Hurricane Survey of April, 1961, estimates a design flood level of 14 feet above M.S.L. in and around the downtown area of New London. The report also indicates that the highest reported flood level was 9.7 feet above M.S.L. The existing level of the land is approximately 5 to 7 feet above M.S.L.

Since the area is farther up the river than the downtown area and is protected by a jetty of land and bridge abutments which will reduce wave action and surge in the area, a design flood level of approximately 10 feet above M.S.L. is assumed.

Three methods of flood protection could be utilized within the area:

1. The total site could be filled to the 10 feet above M.S.L. elevation
2. The site could be graded from a 10 foot elevation near the Vermont Central tracks to a 7 foot elevation at the riverfront. All buildings would be required to have all openings above the 10 foot elevation.
3. An armor stone revetment could be constructed along the riverfront with provisions to sand bag the boat launching area in times of flood.

Street Improvements

A 26 foot wide roadway would have to be provided, as shown, for access to the industrial development, the boat launching facility, and for future development along the waterfront to the north. The appropriate utilities should be provided within the proposed roadway to enable necessary utility connections to be made by the developer. All public utilities should be constructed concurrent with street construction.

CONTROLS OF DEVELOPMENT

Permitted Land Uses

The permitted land use shall include: boat building, service and repair; storage, repair, service and sale of heavy construction equipment; and the manufacturing of goods and products and similar uses provided such operations are not dangerous, obnoxious or offensive.

Land Coverage

The maximum coverage of land by structure shall not exceed 50%. The maximum floor area ratio shall be 2.0.

Lot Area

A minimum lot area of one half (1/2) acre shall be required.

Building Setbacks

The following setbacks shall be required from all street right-of-way lines and property lines: A front yard setback of 35 feet; side yard setback of 10 feet; and rear yard setback of 25 feet. A 10 foot setback may be allowed from lot lines bordering railroad property. All structures shall be set back a minimum of 15 feet from physical obstructions, above or below ground, created by the highway structure.

Building Height

The maximum building height shall be two (2) stories or 30 feet.

Parking

The minimum off-street parking ratio shall be not less than one space per every three employees. Parking areas shall be set back a minimum of 5 feet from property lines and all street right-of-way lines. They shall be surfaced with all-weather paving, suitably landscaped with curbed landscaped strips, seeded and planted, adequately drained, and suitably lighted.

Special Provisions

- No petroleum products or uncommonly combustible or explosive materials shall be stored on-site without the express consent of the State Department of Transportation.
- At all times, access to the highway structure (piers, etc.) shall be made obtainable for maintenance.

All regrading, construction of sub-surface utilities and foundations, together with the planting of trees, by the developer, in the vicinity of the highway piers and footings, shall have the express consent of the Connecticut Department of Transportation.

DEVELOPMENT POTENTIAL

The full economic and land use potential of the sector can only be achieved through heavy industrial development and the utilization of freighting facility potentials. Proposed development represents an extension of the heavy industrial uses to the south and would open up the riverfrontage to the north that is presently confined by the restrictions of at grade railroad crossings.

The economic benefits accruing to the City from this form of development are plentiful. Employment potentials derived from heavy industrial uses are far greater than those associated with light industrial/storage uses. In terms of New London's tax base, revenue could be produced from three sources: the subleasing of State land leased to the City, personal property taxes and real property taxes. The first two sources of revenue are impossible to determine at this stage. However, the property taxes on structures can be estimated and used as a minimum indicator of potential revenue. The illustrative site plan indicates approximately 58,000 square feet of proposed structure (33% site coverage). Assuming a conservative construction cost of $15 per foot, the total cost of construction would equal $870,000. The 55 mil tax rate applied to the assessed value (65%) of $465,000 would yield $31,000 in real property tax each year.

Sector 3

OBJECTIVES OF DEVELOPMENT

- Provide development sites for light industrial uses, non-noxious in nature.
- Unify existing land use patterns within the area.
- Create opportunities for new investments in the area to increase the Grand List and to provide employment.

SECTOR CHARACTERISTICS

Approximately 8.1 acres of land (5.5 acres to the south of existing Lewis Street and 2.6 acres to the north) can be developed for light industrial uses, non-noxious in nature.

The topography of the sector is relatively flat. Abrupt changes in land form exist along the westerly and northerly boundaries and provide natural buffers from adjacent residential uses.

Local access to this area from Interstate 95 and Connecticut Route 32 is excellent. Industrial traffic going to and from this industrial area need not penetrate the residential areas to the north of the sector along Crystal Avenue.

Utilities serving the sector are in the present rights-of-way.

PREREQUISITES TO DEVELOPMENT

Land Acquisition

It is recommended that the Highway Commissioner, through power granted in Public Act No. 549, entitled, "An Act Concerning Multiple Use and Joint Development On, Over, or Under Any State Highway Right-of-Way" acquire an additional 2.2 acres of land to the north of the existing taking line in order to make feasible the optimal multiple use and joint development of the existing highway right-of-way. Twenty-one primary structures with a market value of approximately $300,000 would have to be acquired. The structures are primarily residential, with 43% having a deficient or substandard structural condition.

Zoning Amendments

A zoning change from a Two and Multiple Family District to a Light Industrial District would be required for 4.0 acres of land within the sector. Three quarters of the acreage designated for change falls within the existing highway right-of-way.

Street Improvements

In order to handle proposed industrial traffic, Lewis Street, east of Crystal Avenue, should be improved within its existing 50 foot right-of-way. Forty-two feet of pavement with curbing and four foot sidewalks should be provided. A "hammerhead" turn around should be constructed at the eastern end of Lewis Street and should be of the dimensions to handle large trailer trucks.

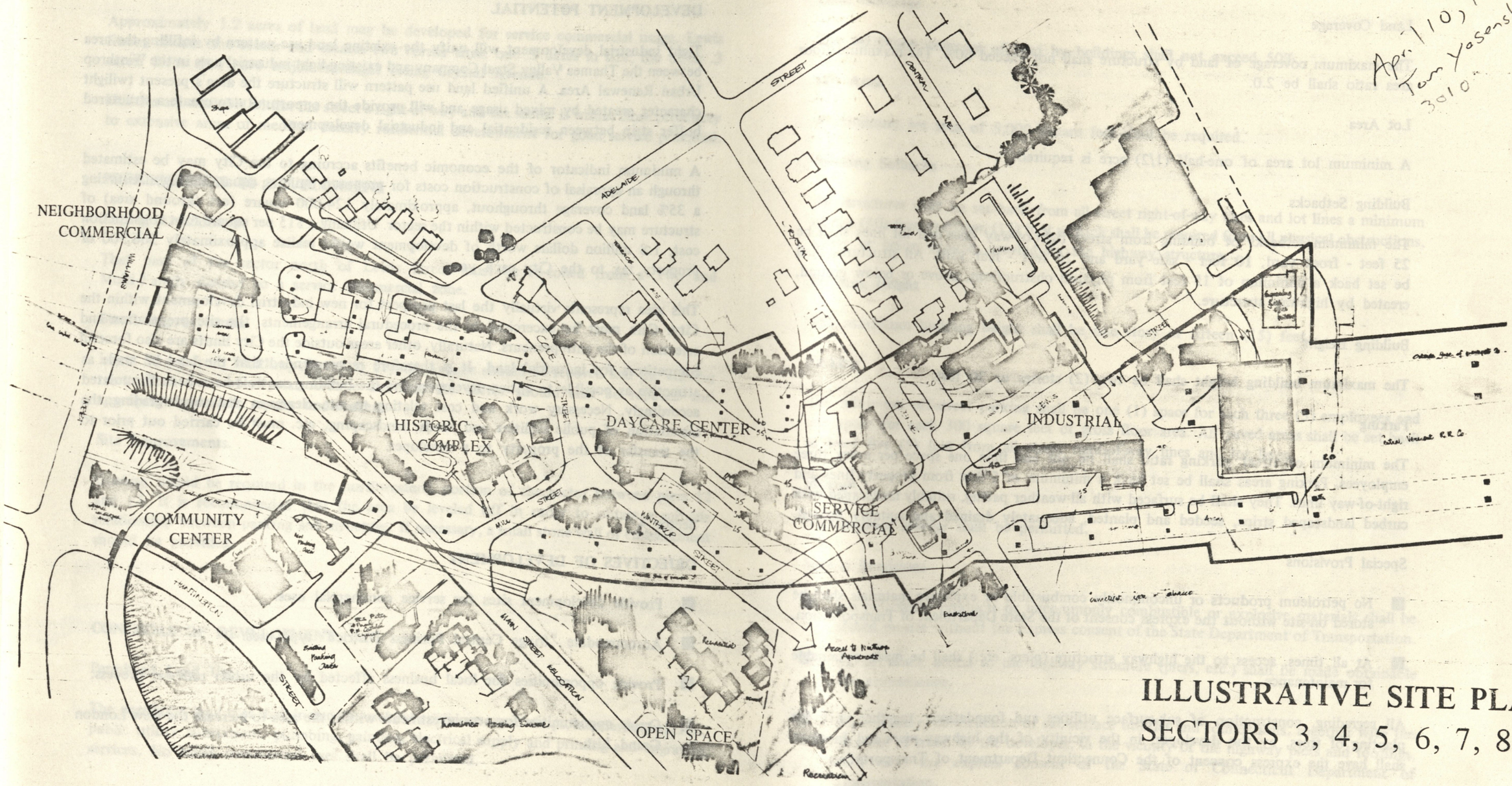
The southern 370 feet of Central Avenue is proposed for closure in order to segregate industrial and residential type traffic.

Perpetual easements shall be retained for existing utilities in this part of Central Avenue to be closed and a "hammerhead" turnaround shall be provided for the remaining segment of Central Avenue.

CONTROLS OF DEVELOPMENT

Permitted Land Use

The permitted land uses shall include truck terminals; manufacture of signs, outdoor advertising; warehousing, wholesale business; and the fabrication, manufacture, finishing and assembly of products or goods provided that the operation is non-nuisance in character and is conducted within an enclosed building.



April 10, 1972
Tom Yasensky
3010

ILLUSTRATIVE SITE PLAN
SECTORS 3, 4, 5, 6, 7, 8 & 9

Land Coverage

The maximum coverage of land by structure shall not exceed 50%. The maximum floor area ratio shall be 2.0.

Lot Area

A minimum lot area of one-half (1/2) acre is required.

Building Setbacks

The minimum setbacks of building from street right-of-way lines and lot lines shall be 25 feet - front yard, 10 feet - side yard and 25 feet - rear yard. All structures shall be set back a minimum of 15 feet from physical obstructions, above or below ground, created by highway structure.

Building Height

The maximum building height shall be two (2) stories or 30 feet.

Parking

The minimum off-street parking ratio shall be not less than one space per every three employees. Parking areas shall be set back a minimum of 5 feet from property lines and right-of-way lines. They shall be surfaced with all-weather paving, suitably landscaped with curbed landscaped strips, seeded and planted, adequately drained and suitably lighted.

Special Provisions

- No petroleum products or uncommonly combustible or explosive materials shall be stored on-site without the express consent of the State Department of Transportation.
- At all times, access to the highway structure (piers, etc.) shall be made obtainable for maintenance.

All regrading, construction of sub-surface utilities and foundations, together with the planting of trees, by the developer, in the vicinity of the highway piers and footings, shall have the express consent of the Connecticut Department of Transportation.

DEVELOPMENT POTENTIAL

Tight industrial development will unify the existing land use pattern by infilling the area between the Thames Valley Steel Company and existing light industrial uses in the Winthrop Urban Renewal Area. A unified land use pattern will structure the area's present twilight character created by mixed usage and will provide the opportunity to create a structured buffer strip between residential and industrial development.

A minimum indicator of the economic benefits accruing to the City may be estimated through an appraisal of construction costs for proposed building square footages. Assuming a 35% land coverage throughout, approximately 124,000 square feet (ground area) of structure may be constructed within the sector. Utilizing a $15 per square foot construction cost, 1.8 million dollars worth of development would realize approximately $66,500 of property tax to the City each year.

This area represents virtually the last prospect for new industrial development within the City. Care must be excercised in the procedural arrangements, the site preparation and selection of the entrepreneurs. Naturally, other areas outside the City limits are also forceful competitors for industrial land. It is therefore recommended that the land be made as attractive as possible to entice developers and the building controls have been formulated accordingly. Necessary work and cost relating to site clearance and rough grading, the installation of public utilities and roads, landscaping, etc. must be carried out prior to the transfer of the property to a developer.

Sector 4

OBJECTIVES OF DEVELOPMENT

- Provide development sites for service commercial uses.
- Accommodate "fringe Central Business District" type uses.
- Provide opportunities for local business affected by the urban renewal process.
- Create opportunities for new investments within the area to increase the New London Grand List.

SECTOR CHARACTERISTICS

Approximately 1.2 acres of land may be developed for service commercial usage. Lewis Street divides the sector and creates two corner sites, one .9 acres in size, the other .3 acres. Both sites have major frontages facing Crystal Avenue.

Utilities are available within the street's right-of-way and the sector is within close proximity to extensive areas of medium density residential development for good service potential.

PREREQUISITES TO DEVELOPMENT

Zoning Amendment

That part of the sector north of Lewis Street must be re-zoned from a Two and Multi-Family district to a service commercial zone.

Street Improvements

Lewis Street from Winthrop Street to Crystal Avenue should be repaved and the curbing reset. That part of Crystal Avenue abutting the sector should also be repaved and appropriate sidewalk repairs undertaken.

Site Improvements.

Grading would be required in the northwesterly portion of the sector between piers 12 and 13. It is recommended that the area be leveled off in order to obtain a suitable relationship between parking and structure. If necessary, a small stone wall or embankment should be provided.

CONTROLS OF DEVELOPMENT

Permitted Land Use

The permitted land uses shall include household appliance repair shops, launderies, bakeries, public utility substations, plumbing, painting, electrical supply and printing and engraving services. No retail commercial uses shall be permitted.

Land Coverage

The maximum coverage of land by buildings shall not exceed 50%.

Lot Area

A minimum lot area of 5,000 square feet shall be required.

Building Setbacks

All structures shall be set back from all street right-of-way lines and lot lines a minimum of ten (10) feet. A fifteen (15) foot setback shall be required from all physical obstructions, above or below ground, created by the highway structure.

Building Height

The maximum building height shall be one story or fifteen (15) feet.

Parking

The minimum off-street parking shall be one (1) space for each three (3) employees and one space for each 300 square feet of gross floor area. All paved areas shall be set back at least five (5) feet from all street right-of-way lines and lot lines.

Storage

Not outdoor storage shall be permitted.

Special Provisions

- No petroleum products or uncommonly combustible or explosive materials shall be stored on-site without the express consent of the State Department of Transportation.
- At all times, access to the highway structure (piers, etc.) shall be made obtainable for maintenance.
- All regrading, construction of sub-surface utilities and foundations, together with the planting of trees, by the developer, in the vicinity of the highway piers and footings, shall have the express consent of the State of Connecticut Department of Transportation.

DEVELOPMENT POTENTIAL

Service commercial development shall provide opportunities for the accommodation of "fringe Central Business District" type uses and shall provide service amenities to the adjacent residential areas.

The economic benefits derived from the utilization of this land can be appraised through an estimation of construction costs. Taking into account highway pier and site restrictions, approximately 10,000 square feet of development can be constructed. The minimum amount of revenue accruing to the City each year has been estimated at $5,200.

There is a projected need for these uses in the area, particularly in the location proposed as it is close to the residential areas, yet will not have a detrimental effect on the inhabitants.

Sector 5

OBJECTIVES OF DEVELOPMENT

- Provide for a development site for a public daycare center or related public use.
- Provide for landscaped open space.
- Upgrade public amenities and services within the community.

SECTOR CHARACTERISTICS

Of the 3.3 acres of land available, approximately one acre in the southeasterly portion of the sector is suitable for development. The topography over the rest of the sector is rather severe, generally falling off from north to south.

The location potential for a daycare center is excellent. The Winthrop Apartments (public housing) and the Thamesview I and II multi-family low and moderate income residential developments are all within easy walking distance. Approximately 400 dwelling units are located within these developments and this site represents the logical extension of this development.

Utilities are available within this area.

PREREQUISITES TO DEVELOPMENT

Street Improvements

The sidewalks on Winthrop Street should be replaced and approximately 25 feet of curbing reset.

Site Improvements

That part of the area disignated for construction of the daycare center and associated parking area should be appropriately graded.

The northern boundary of the area should be suitably landscaped in order to reduce the visual impact of the highway structure on the adjacent residential neighborhood.

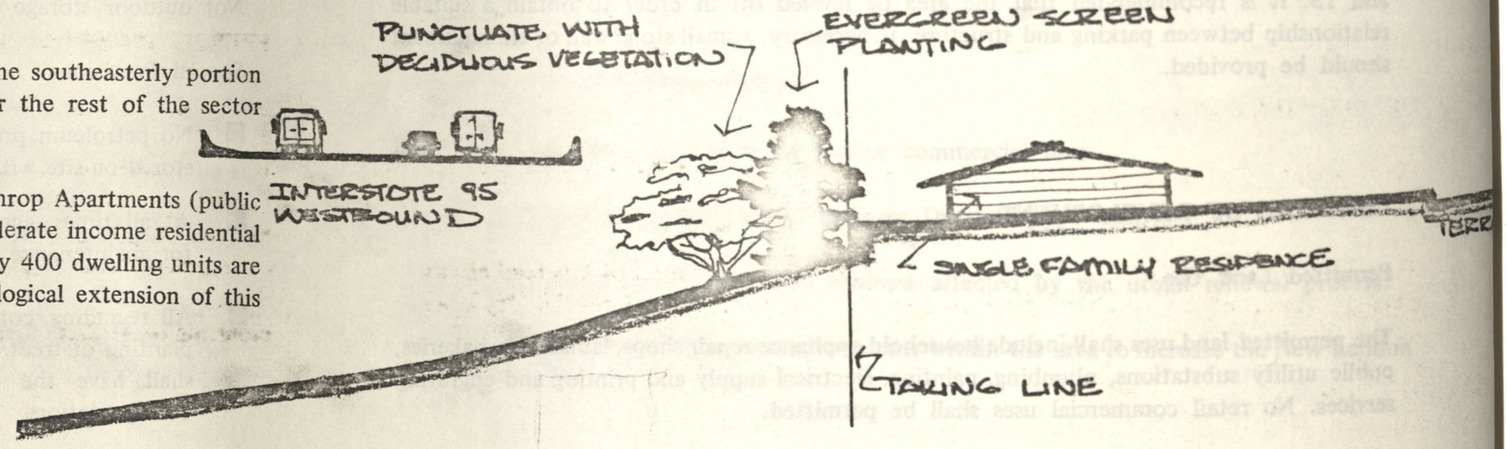
CONTROLS OF DEVELOPMENT

Permitted Land Uses

The permitted land uses shall be public or semi-public and shall include children's daycare facilities.

Land Coverage

The maximum coverage of the land by structure shall not exceed 50%.



PROPOSED LANDSCAPING TO REDUCE IMPACT OF HIGHWAY

Building Setbacks

Buildings shall set back from all street right-of-way lines and lot lines as follows: front yard, 25 feet; side yard, 10 feet; rear yard, 20 feet. A 15 foot setback shall be required from all physical obstructions, above or below ground, created by the highway structure. A distance of 30 feet is required between principal buildings on the same site.

Building Height

The maximum building height shall be two stories or 25 feet.

Parking

Parking areas shall set back a minimum of five (5) feet from street right-of-way lines. The area shall be surfaced with all-weather paving, suitably landscaped with curbed landscaped strips, seeded and planted, adequately drained and suitably lighted. Parking shall be provided off of the street right-of-way.

Special provisions

- At all times, access to the highway structure (piers, etc.) shall be made obtainable for maintenance.
- All regrading, construction of sub-surface utilities and foundations, together with the planting of trees, by the developer, in the vicinity of the highway piers and footings shall have the express consent of the Connecticut Department of Transportation.

DEVELOPMENT POTENTIAL

Development of a permanent daycare center will provide a much needed service to the surrounding medium density residential development.

The economic benefit accruing to the City is indirect. The utilization of this land allows for the creation of a public service without removing any real estate from the City's tax rolls.

Sector 6

OBJECTIVES OF DEVELOPMENT

- Provide for passive and active open spaces.
- Continue open space linkage through existing residential area.
- Create new land for passive and active open space.

SECTOR CHARACTERISTICS

Approximately 3.2 acres of land could be made available for passive and active open space. Presently, about 2/3 of this acreage is proposed for an open riprap channel to carry storm water from the North and South Conduits to the Thames River. The channel is proposed to follow the alignment of relocated Main Street and is approximately 850 feet in length.

CONTROLS FOR DEVELOPMENT

Permitted Land Use

The permitted land use shall be public, passive and active landscaped, open space. No strutures shall be allowed to be erected on this site.

PREREQUISITES TO DEVELOPMENT

Site Improvements

It is recommended that the proposed channel be eliminated and that the North and South Conduits be extended to Crystal Avenue. Land fill would be required and the site will have to be graded, seeded and landscaped after construction to align to the surrounding environment. The proposed improvements will have the considerable benefit of adding needed open space to the area, perhaps in the form of recreation usage and will overcome problems of aesthetics, health and public safety.

Street Improvements

Mill Street should be widened to 32 feet to provide a constant pavement width. The street will need new pavement, the curbs reset, and the sidewalk on the south side replaced.

DEVELOPMENT POTENTIAL

The public safety and health benefits accruing to the community by extending the conduits in place of the open channel greatly outweigh cost considerations. Foremost, a buried conduit will ensure the safety of the many children playing in the area and eliminate its deleterious effects on the surrounding housing. One child's life has already been lost to this watercourse which tragically dramatizes the inherent dangers of the proposed channel.

Approximately 2.3 acres of highly usable land can be added to the area for passive and active open space and can be utilized to link the proposed park south of Crystal Avenue in the Winthrop Renewal Area to the activity areas proposed within the highway right-of-way.

Sector 7

OBJECTIVES OF DEVELOPMENT

- Create development site for a Historic Complex.
- Provide repository in an appropriate setting for structures of historic and architectural significance.
- Maintain and illustrate the historic traditions of New London.
- Establish further open spaces for public enjoyment.

SECTOR CHARACTERISTICS

Approximately 4 acres of land is available for the development of an historic complex. The land includes the historic Old Mill and Nathan Hale Schoolhouse sites. This area is highly adaptable for use as a historic sector in the City as other heriditary landmarks in the form of buildings and monuments can be added to the environs.

PREREQUISITES TO DEVELOPMENT

Site Improvements

The land will have to be graded for the appropriate siting of structures and parking areas. Consideration in grading and siting must be given to achieve appropriate relationships between buildings, highway structure, parking areas, landscape elements and the adjacent residential structure. That portion of the retaining wall of the Old Mill around the proposed parking area shall have to be reconstructed and squared off.

CONTROLS FOR DEVELOPMENT

Permitted Land Use

The permitted land use shall be public and semi-public.

Land Coverage

The maximum coverage of land by structure shall not exceed 30%.

Building Setbacks

All structures shall set back a minimum of twenty-five (25) feet from all street right-of-way lines. A setback of 30 feet shall be required from adjacent structures on the same site. A minimum setback of fifteen feet (15) shall be required from all physical obstructions, above or below ground, created by the highway structure.

Building Height

The maximum building height shall be three stories or thirty-five (35) feet.

Parking

Parking areas shall set back a minimum of five (5) feet from street right-of-way lines The area shall be surfaced with all-weather paving, suitably landscaped with curbed landscaped strips, seeded and planted, adequately drained and suitably lighted. Parking shall be provided off the street right-of-way.

Special Provisions

At all times, access to the highway structure (piers, etc.) shall be made obtainable for maintenance.

All regrading, construction of sub-surface utilities and foundations, together with the planting of trees, by the developer, in the vicinity of the highway piers and footings, shall have the express consent of the Connecticut Department of Transportation.

DEVELOPMENT POTENTIAL

An aggregate of four acres may be created for the historic complex if this concept is implemented. Two or three structures of historic or architectural significance could be relocated on the site. The illustrated site plan shows these relocated structures clustered about a common green area with pathways integrating the "new" development with the Old Mill and Nathan Hale School House. An indoor or outdoor museum containing seafaring relics and artifacts appropriate to New London's history will be a desirable attraction in the area. The existing natural beauty of the Old Mill site would be retained and emphasized. Parking for approximately 85 vehicles has been proposed under the highway structure, parallel to Coles Street. Evergreen screen planting shall be provided to shield the parking from adjacent residential uses.

The creation of an historic complex would act as a strong activity node within the open space linkages proposed from the park and residential areas within the Winthrop Urban Renewal Area to the Hodges Square retail area and the Riverside Park area.

Once again a positive public benefit can be attained without taking real estate off of New London's tax rolls.

Sector 8

OBJECTIVES OF DEVELOPMENT

- Create a development site for neighborhood commercial usage designed to service residential development.
- Restore balance in New London's commercial structure by replacing land designated for this use and taken by highway improvements.
- Provide for the optimal utilization of a piece of land strategically located but restricted by highway sub- and superstructures.

SECTOR CHARACTERISTICS

Approximately 1.9 acres of land under the highway structure is available for use. The topography of the site is relatively level, however easements for the North Conduit and a storm water conduit would have to be respected, along with abuttment/pier restrictions.

The location of the site is excellent as the potential for walk-in trade is abundant, especially from the multi-family residential development within the Winthrop Urban Renewal Area. The benefit of cumulative attraction is also provided by the adjacent Hodges Square retail establishments.

Vehicular access to the site would be restricted to relocated Main Street. The public parking provided for the proposed Historic Complex could be utilized for this site and for those Hodges Square retail establishments that have lost their curb parking due to roadway realignment and improvements.

Utilities exist within the area.

PREREQUISITES TO DEVELOPMENT

Site Improvements

The location of approximately 200 feet of 30 inch reinforced concrete pipe should be redesigned to run parallel to the highway structure in a more northerly section of the site. This new location will ease restrictions on the site already encumbered by pier/abuttment restrictions and will provide a greater developable structure area.

CONTROLS FOR DEVELOPMENT

Permitted Land Uses

The permitted uses shall include retail stores, personal service establishments, clubs, business and professional offices, bank and financial establishments, household appliance repair shops, public utilities, funeral parlors and mortuaries.

Land Coverage

The maximum coverage of land by building shall not exceed 50%.

Lot Area

A minimum lot area of 5,000 square feet is required.

Building Setbacks

All structures shall be set back from street right-of-way lines and lot lines a minimum of ten (10) feet. A fifteen (15) foot setback shall be required from all physical obstructions, above or below ground, created by the highway structure.

Building Height

The maximum building height shall be one story or fifteen (15) feet.

Parking

The minimum off-street parking shall be one space for every 400 square feet of gross floor area. All paved areas shall be set back a minimum of five (5) feet from all street right-of-way lines and lot lines.

Storage

No outdoor storage shall be permitted.

Special Provisions

- No petroleum products or uncommonly combustible or explosive materials shall be stored on-site without the express consent of the State Department of Transportation.
- At all times, access to the high structure (piers, etc.) shall be made obtainable for maintenance.
- No vehicular access will be permitted to Williams Street.
- All regrading, construction of sub-surface utilities and foundations, together with the planting of trees, by the developer, in the vicinity of the highway piers and footings, shall have the express consent of the Connecticut Department of Transportation.

DEVELOPMENT POTENTIAL

Neighborhood commercial development will provide many benefits for the adjacent residential areas. In conjunction with the Hodges Square retail establishments, it will provide an excellent convenience center for area residents, especially those in the multi-family developments within the Winthrop Renewal Area.

Proposed neighborhood commercial usage shall also help maintain the balance within New London's commercial structure by replacing that land within the area, along existing I-95, that was zoned for neighborhood commercial use and was taken for highway improvements.

The proposed use will also supplement the disposition designated for neighborhood commercial use within the Winthrop Urban Renewal Area that was eliminated by the relocation of Main Street.

The minimum tangible economic benefits accruing to the City (property tax on structure) have been estimated to be $8,000 per year.

Sector 9

OBJECTIVES OF DEVELOPMENT

- Provide for the development of a community center through the utilization of an existing facility that can no longer function properly due to highway improvements.
- Upgrade public amenities and services within the community.

SECTOR CHARACTERISTICS

The Church proper and parish house of the Church of Our Lady of Perpetual Help (Roman Catholic) presently occupy the sector in question. The alignment of the South Conduit creates the necessity of a partial taking, the parish house, and in doing so negates the proper functioning of the total church facility as the parish and church proper function as a single entity. The site area remaining after a partial taking does not allow for the reconstruction of a parish house that would provide for an adequate relationship between structures and maintain any of the existing site characteristics.

Our Lady of Perpetual Help functioned as a neighborhood church. However, its parish has been scattered about the community by the relocation processes of the highway program.

No longer performing a neighborhood function, the Church has inherited the problem of insufficient off-street parking which has not been solved by the acquisition of additional land from the Redevelopment Agency.

PREREQUISITES TO DEVELOPMENT

Land Title

It is recommended that the Church property be purchased and rennovated for community use.

Rehabilitation

The Church structure provides an excellent potential for conversion to a community center as its large, clear span internally allows for excellent flexibility and adaptation. A full rehabilitation program shall be required in order to prepare the Church structure for the proposed use.

CONTROLS FOR DEVELOPMENT

Permitted Land Use

The permitted land use shall be public or semi-public and shall include community center facilities.

DEVELOPMENT POTENTIAL

The conversion of the Church structure to a proposed community center is the most efficient way to realize the structure's maximum potential as a neighborhood element.

The proposed community center will provide much needed amenities and services to the surrounding multi-family residential developments and can be achieved without the taking of additional real estate from the City's tax rolls.

Sector 10

OBJECTIVES OF DEVELOPMENT

- Provide a development site for industrial development, non-noxious in nature.
- Stimulate New London's ecomony through industrial development and employment opportunity and support the City's tax structure.
- Create new industrial development potential within the City's limited industrial land supply.

SECTOR CHARACTERISTICS

A total of about 4 acres of land can be utilized for development if some site preparation and remedial work is done around the highway structures. The land is divided into approximately two equal parts; Site A, an irregular, but relatively level area between I-95 and the Route 32 Connector and with frontage to Williams Street, and Site B, the area contained within the circular Ramp F.

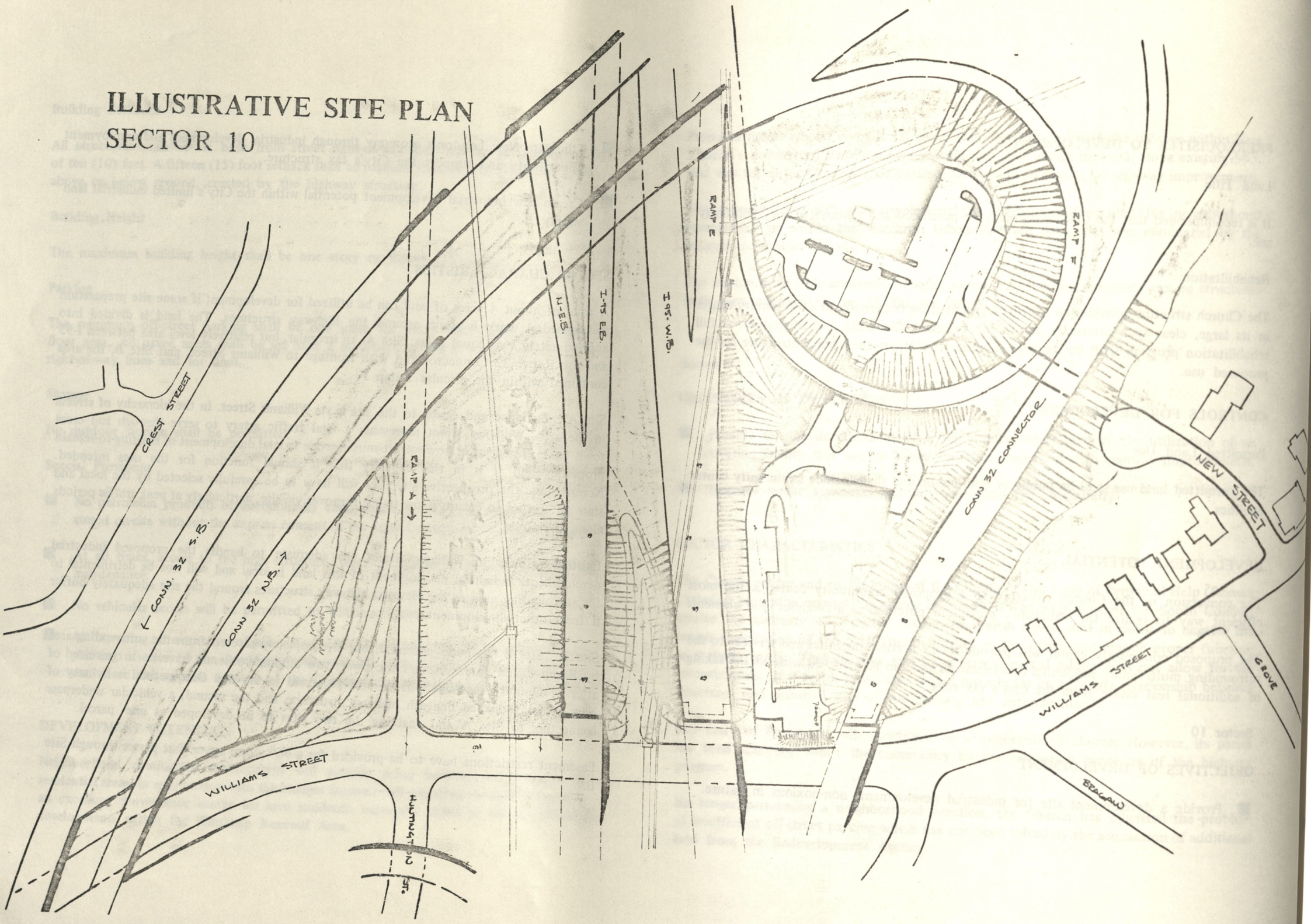
Site A: Entrance and egress to the site is via Williams Street. In the hierarchy of streets in the area, Williams Street represents a vital traffic artery to serve through and cross town travel. In addition however, it must service frontal development of existing-to-remain properties and it is in this capacity that it should function for the uses intended. Nevertheless, the prospective site user will have to be carefully selected by the local and state authorities to ensure a low traffic turnover, on-site, particularly at peak traffic periods along the street.

Existing utilities in Williams Street are adequate to handle the proposed industrial development. Industrial development of this land is ideal and will not be detrimental to the surrounding area as the elevated highway structures around the site adequately buffer it from other development.

Site B: Site B has good potential, but is completely severed from the surrounding area by Ramp F and grade changes. However, two alternate schemes have been conceived of after preliminary investigations to provide access to the site. One method is by way of New Street projected beneath highway structures and the second, a vehicular underpass connecting to Site A and enabling the two sites to be developed as one parcel.

Easement restrictions have to be provided for a 96" storm sewer that passes through Site B.

ILLUSTRATIVE SITE PLAN
SECTOR 10



PREREQUISITES TO DEVELOPMENT

Zoning Amendment

The Single Family zone along existing New Street would have to be amended to an Industrial zone. This amendment would provide for greater unity within the existing zoning pattern as industrial and commercial zones presently surround this Single Family zone.

Site Improvements

Site A: In order to provide for a comfortable lateral site width to permit conventional development and roadways on the site, it is recommended that the slope along the westbound portion of Interstate 95 be redesigned to a 2:1 ratio. All other slopes affecting the site area shall be maintained as designed. A minimum amount of rough grading will be required over the eastern portion of the site to attain a level area at approximately elevation 39 feet above M.S.L.

Site B: This site needs three elements to make it marketable; road access, land cut and fill, and utilities. All are considered feasible to provide and definitely worth the cost and effort. A preliminary study has shown that the site characteristics are favorable to construct a tunnel beneath the ramps and on the present alignment of New Street. Two pre-assembled structural plate pipes can be used for relatively inexpensive tunnel construction at dimensions to allow for easy one-way truck movements between Williams Street and the site.

In order to create a feasible development site, it is recommended that the interior slopes to Ramp F be redesigned to a 2:1 ratio. Rough grading, cut and fill would be required to reshape the existing "dish-shaped" land form into a usable parcel. It is recommended that the western portion of the site be cut to approximately elevation 58 and graded to existing elevation 43 at the eastern portion of the site as the interior of the ramp is presently designed to drain to this point. The proposed cut shall not effect the 96" storm sewer running through the site as it has maximum invert elevation of 48 within the ramp interior.

The utilities in New Street would have to be reconstructed to acceptable standards and extended into the proposed site area.

Further study is needed before a final determination can be made on this proposal. However, an alternative underpass has been studied on an alignment directly between Sites A and B.

A vehicular connection can be provided under Ramp F at an appropriate location where vertical height permits to gain access to Site B from Site A. It is recommended once again, that a structural plate pipe be utilized, this time at a 12'6" clearance as the proposed use of Site B will be limited to parking in conjunction with Site A. This underpass should not alter the designed profile of Ramp F as connection can be made where Ramp F has an elevation of approximately 54 feet above M.S.L. or greater.

In the western portion of Site B, rough grading and fill is needed. It is recommended that this "dish-shaped" land form be filled and graded to provide for a level area at approximately elevation 45 feet, but at the same time maintaining the low gravity point on the site at 43 feet for natural storm drainage.

CONTROLS FOR DEVELOPMENT

Permitted Land Use

The permitted land uses shall include truck terminals; manufacture of signs and outdoor advertising; warehousing; wholesale business; and the fabrication, manufacture, finishing and assembly of products or goods provided that the operation is non-nuisance in character and is conducted within an enclosed building.

Land Coverage

The maximum coverage of land by structure shall not exceed 50%.

Building Setbacks

The minimum setbacks of building from street right-of-way lines and lot lines shall be 25 feet front yard; 10 feet side yard and 25 feet rear yard.

All structures shall be set back a minimum of 15 feet from all highway slopes in order to provide access for maintenance.

Building Height

The maximum building height shall be two stories or 30 feet.

Parking

The minimum off-street parking ratio shall be not less than one space per every three employees. Parking areas shall set back a minimum of 5 feet from property lines and all street right-of-way lines. They shall be surfaced with all-weather paving, suitably landscaped with curbed landscaped strips, seeded and planted, adequately drained and suitably lighted.

Storage

No outdoor storage shall be permitted.

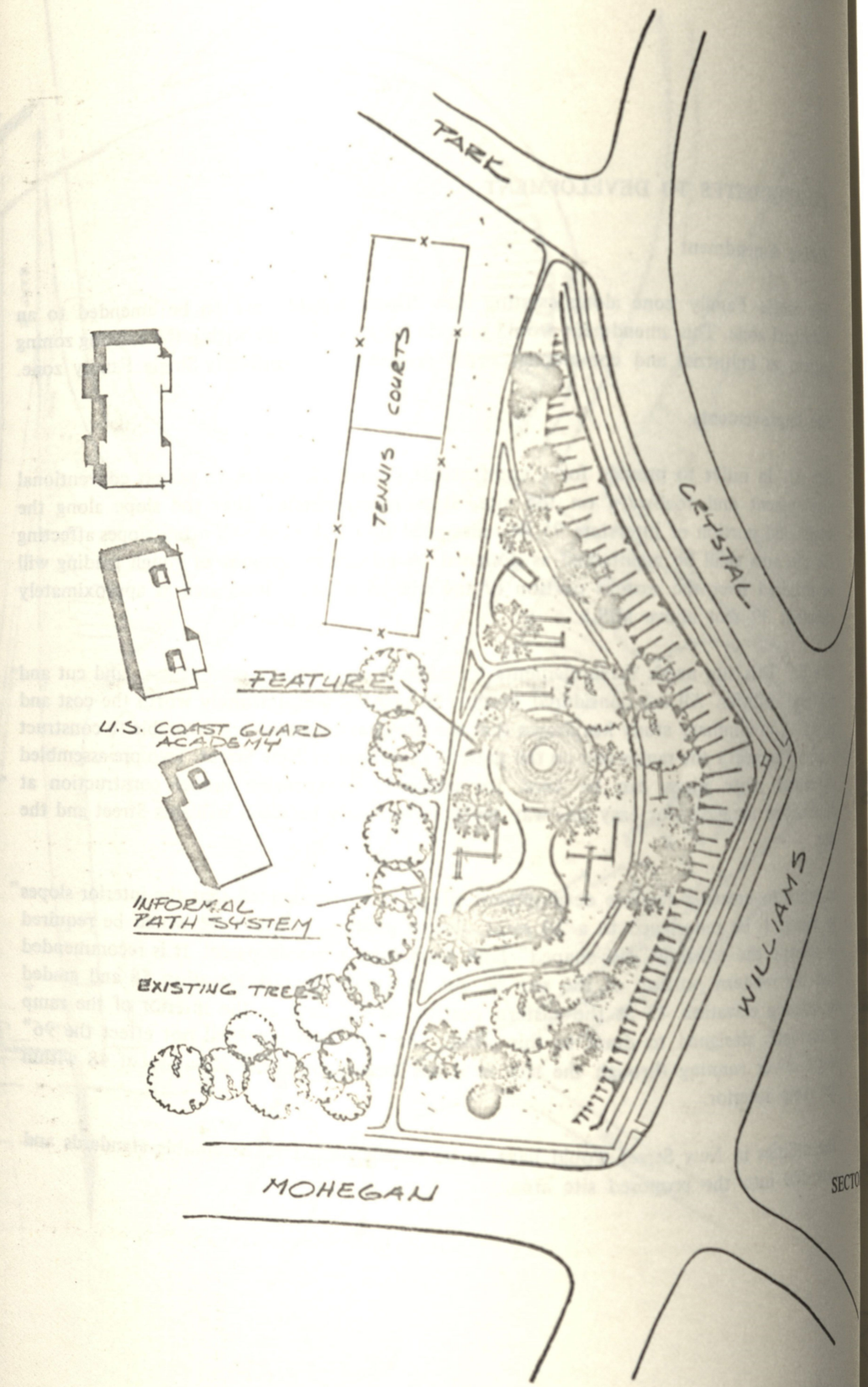
Special Provisions

- No petroleum products or uncommonly combustible or explosive materials shall be stored on-site without the express consent of the State Department of Transportation.
- At all times access to the highway structure (piers, slopes, etc.) shall be obtainable for maintenance, etc.
- All regrading, construction of subsurface utilities and foundations, together with the planting of trees in the vicinity of the highway piers and footings by the developer, shall have the express consent of the State Department of Transportation.

DEVELOPMENT POTENTIAL

The utilization of this site for industrial development would provide for new potential within New London's limited industrial land supply. In addition, it would aid the City in the fierce competition for industrial uses that stimulate the economy through taxbase and employment potential. It is, therefore, recommended that this land be utilized and made as attractive as possible to entice developers. All the necessary work and costs relating to site preparation should be carried out prior to the lease of the land to the developer.

The illustrated site plans propose the development of 30,000 square feet of structure, associative service facilities, and limited parking within Site A.



Approximately 25,000 square feet of structure is shown on Site B with auxiliary parking.

In general, the recommended scheme of development will provide for a greater economic return to the City, but a limit on the type of industrial development and employment potential is indicated.

The alternate proposal suggests a single development package for both Sites A and B with a vehicular link beneath Ramp F. In this proposal, parking accommodations for approximately 145 vehicles can be constructed on Site B.

Economic benefits accrue to the City in terms of employment and tax revenue produced. The minimum indicator of potential tax revenue has been estimated from building construction costs. Assuming a $15 per square foot construction cost, the optimum proposed development involving structures on both Site A and B would produce $29,400 in real property taxes.

Sector 11

OBJECTIVES OF DEVELOPMENT

- Provide for passive landscaped open space.
- Establish pedestrian linkage between major open spaces.

SECTOR CHARACTERISTICS

Approximately one acre of land can be made available for passive landscaped open space. The sector in question is created by the realignment of the northern extremity of Crystal Avenue. Approximately one half of the area in question is presently utilized as passive park land by the City.

DEVELOPMENT POTENTIAL

It is proposed to create a landscaped, informal passive activity node. The plant types should be a mixture of large and medium deciduous trees and evergreens, basically ornamental in character. The planting design should complement informal walkways and seating arrangements. A primary feature, a flowerbed arrangement or freestanding sculpture, should be provided as a focal point within the park.

It is recommended that all walkways be at least six feet wide for mechanical snow removal.

Sector 12

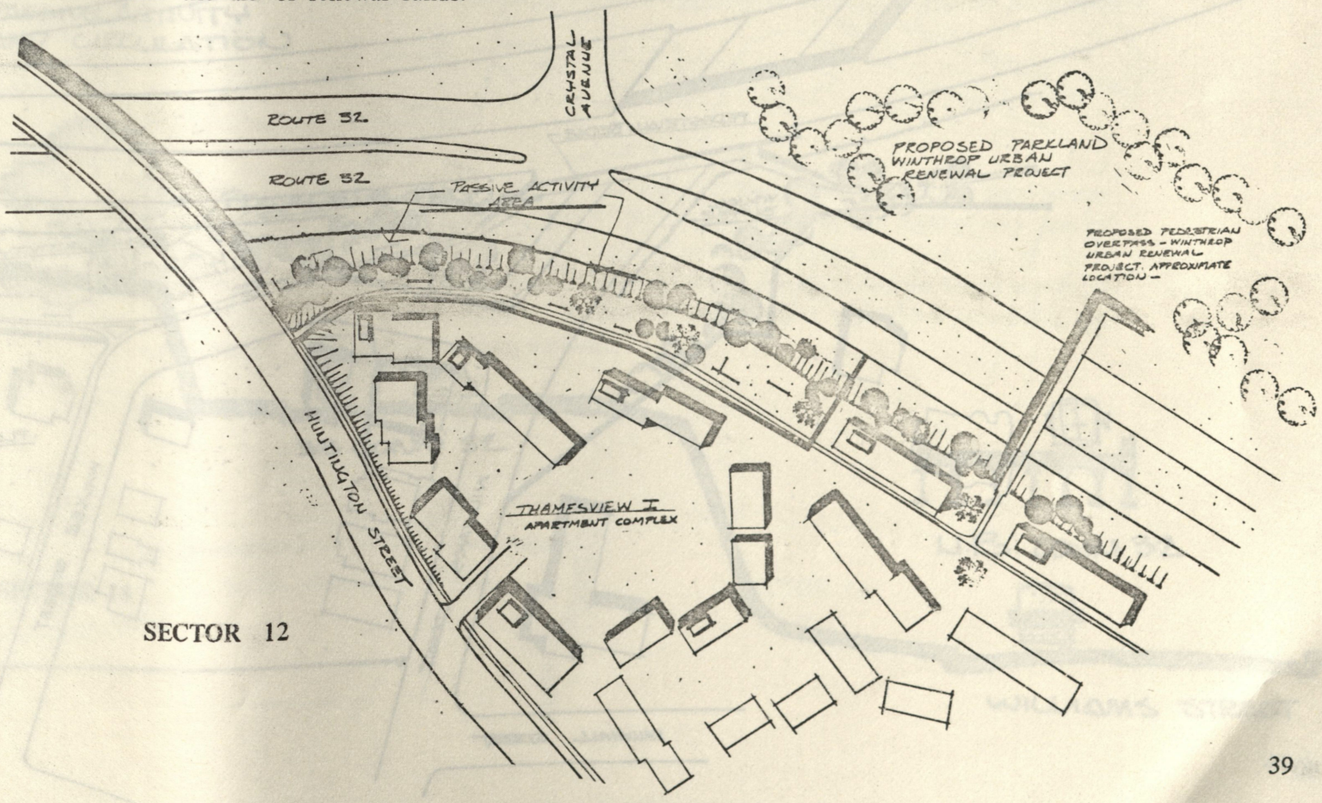
OBJECTIVES OF DEVELOPMENT

- Provide a visual screen as a separator between Route 32 and the Thames View I apartment complex.
- Link the proposed linear park to proposed park land within the Winthrop Urban Renewal Area.
- Create pleasant scenic park land along the freeway.

SECTOR CHARACTERISTICS

The area in question is composed of the Route 32 right-of-way that abuts the Thames View I apartment complex. The edge of the Route 32 roadway is about 100 feet from apartment structures with the apartment ground elevation approximately 28 feet above that of the highway.

Adjacent to the sector, on the east side of Huntington Street, within the Winthrop Urban Renewal Area, a major park is proposed. Connection between this park and the Thames View I apartments will be via a pedestrian bridge spanning Route 32, to be constructed with the aid of renewal funds.


CRYSTAL AVENUE
ROUTE 32
ROUTE 32
PASSIVE ACTIVITY AREA
PROPOSED PARKLAND WINTHROP URBAN RENEWAL PROJECT
PROPOSED PEDESTRIAN OVERPASS - WINTHROP URBAN RENEWAL PROJECT, APPROXIMATE LOCATION -
HUNTINGTON STREET
THAMESVIEW I APARTMENT COMPLEX

SECTOR 12

DEVELOPMENT POTENTIAL

Screen planting has been proposed along the Route 32 right-of-way as the difference in elevations will not adequately perform a screening/separation function. Plan types should be medium sized evergreens planted in either linear or echelon formation. Some clusters may be effective also.

A walkway is proposed by the State to follow the Route 32 right-of-way. It should be designed to link up with the pedestrian bridge proposed for the Winthrop Renewal Area recreation facility. Benches, lights and large deciduous trees are proposed to complement the walkway system.

Sector 13

OBJECTIVES OF DEVELOPMENT

- Provide a visual and land use buffer between highway and residential development.
- Provide for passive landscaped open space.
- Provide for the development of recreation facilities.

SECTOR CHARACTERISTICS

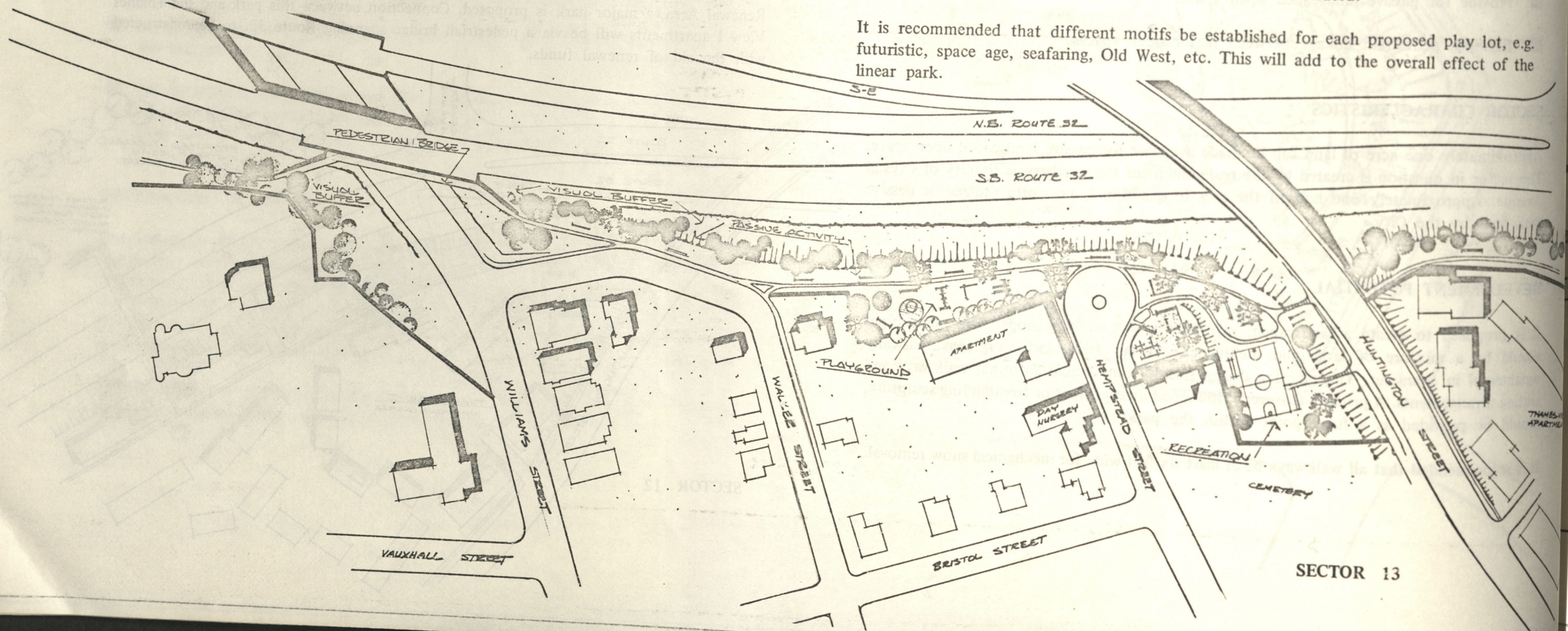
Sector 13 is that area of land along the south side of Route 32 between Huntington Street and Williams Street. The highway is in a cut in this area with stone face walls reaching an almost sheer height of 35 feet near Huntington Street. The right-of-way land around the proposed Hempstead Street cul-de-sac steps down to meet Huntington Street which passes over Route 32. There is, therefore, a clearly defined land strip which is physically separated from the highway and can be utilized for open space purposes.

DEVELOPMENT POTENTIAL

The recent Community Development Action Plan (CDAP) for New London indicates that there are 306 children under 18 years of age within the area and that no recreation facilities are available.

The illustrative site plan shows the lower portion of the proposed park, near Huntington Street, leveled off through terracing and utilized as a recreation facility for older children, i.e. the provision of a basketball court and general activity area. The upper portion of the park should be designed for the younger children and conventional play equipment such as swings, slides and jungle gyms etc. has been indicated.

It is recommended that different motifs be established for each proposed play lot, e.g. futuristic, space age, seafaring, Old West, etc. This will add to the overall effect of the linear park.



Landscaping for the entire sector should be both aesthetic and functional. Within the recreation facilities, the plant types should be various sized deciduous trees having ornamental and shading qualities. A buffer strip has been proposed for the western portion of the sector near Williams Street as land form relationships no longer perform a screening function for adjacent residential uses. Medium sized evergreens are indicated planted in linear fashion.

A walkway system has been proposed to continue through the entire sector. Benches, lighting and shade trees should complement this system.

A second pedestrian bridge is proposed to span Williams Street and continue the park linkage. As Williams Street passes under Route 32, the possibility exists of combining the proposed structure with the Route 32 bridge structure.

Sector 14

OBJECTIVES OF DEVELOPMENT

- Provide a landscaped buffer from highway development.
- Continue linear park linkages.

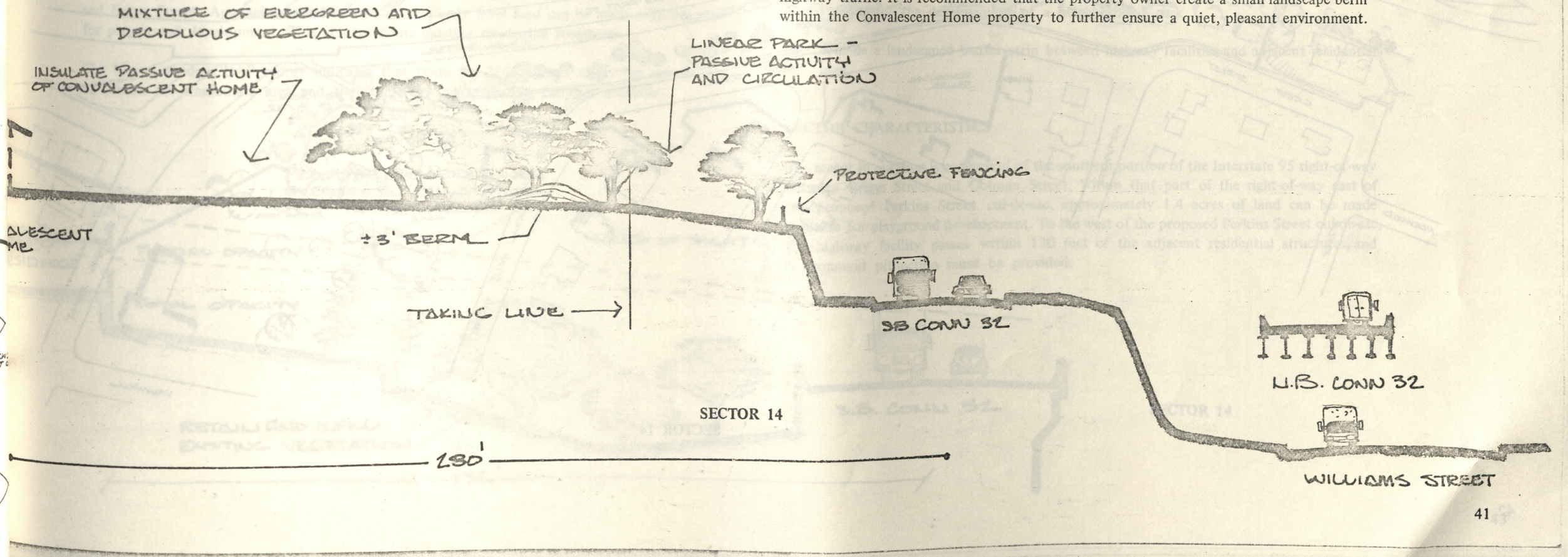
SECTOR CHARACTERISTICS

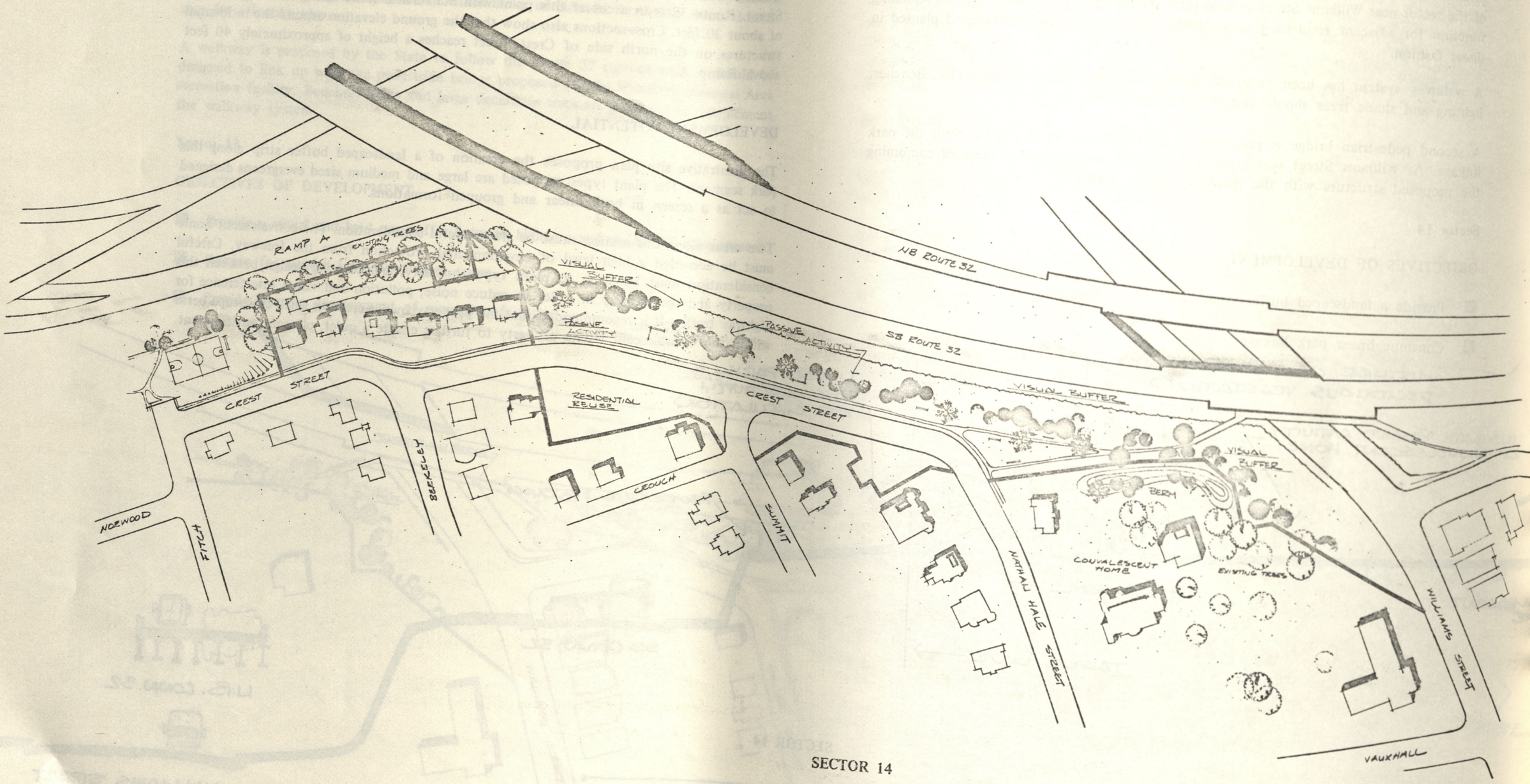
Sector 14 comprises the southern rights-of-way of Route 32 and I-95, extending from Williams Street up to and including the residential structures on the north side of Crest Street. Route 32 is in a cut at this point with the vertical stone facing reaching a height of about 20 feet. Cross-sections also show that the ground elevation around the residential structures on the north side of Crest Street reaches a height of approximately 40 feet above Ramp A.

DEVELOPMENT POTENTIAL

The illustrative site plan proposes the creation of a landscaped buffer strip along this park segment. The plant types proposed are large and medium sized evergreens designed to act as a screen in both linear and grouped formations.

Two areas along this section must be given careful consideration. The convalescent home must be accorded a high level of environmental protection from the freeway. Careful consideration must be given to plant types, quantity, and planting design between this property and the freeway in order to reduce noise, pollution and visual interference for highway traffic. It is recommended that the property owner create a small landscape berm within the Convalescent Home property to further ensure a quiet, pleasant environment.




RAMP A
EXISTING TREES
VISUAL BUFFER
PASSIVE ACTIVITY
NB ROUTE 32
SB ROUTE 32
PASSIVE ACTIVITY
VISUAL BUFFER
STREET
CREST
RESIDENTIAL REUSE
CREST STREET
VISUAL BUFFER
BERM
BERKELEY
CROUCH
SUMMIT
NATHAN HALE STREET
CONVALESCENT HOME
EXISTING TREES
WILLIAMS STREET
NORWOOD
FITCH
VAUXHALL

SECTOR 14

The residential uses along the north side of Crest Street must also be given careful consideration. A wooded area to the rear of these houses should be retained and infill planting with evergreen vegetation should be done where necessary in order to reduce the visual impact of the southbound sector of Route 32.

The pedestrian system is also proposed to extend through this sector and should be complemented with ancillary items such as large and medium sized deciduous trees, benches, lights and trash receptacles.

Sector 15

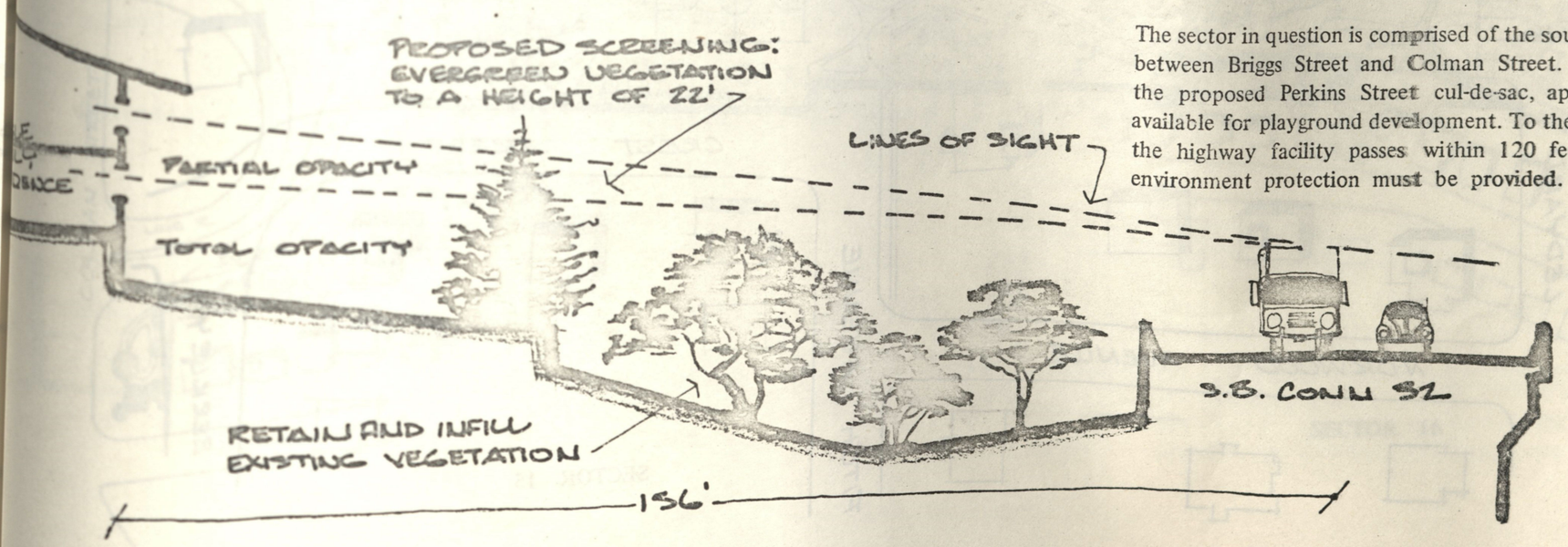
OBJECTIVES OF DEVELOPMENT

- Provide for the development of recreation facilities within the highway right-of-way.
- Provide a landscaped buffer between highway and residential development.

SECTOR CHARACTERISTICS

Sector 15 represents a residual area of the Interstate 95 right-of-way between Sector 16 and Briggs Street. Approximately 1.1 acres of relatively level land can be made available for playground development. This acreage abuts existing residential structures.

The New London CDAP report indicates that there are 214 children under the age of 18 within the immediate area and that there are no recreation facilities available.



SECTOR 14

DEVELOPMENT POTENTIAL

The illustrative site plan proposes the creation of an outdoor neighborhood recreation facility. The eastern portion of the park has been reserved for the older children with the provision of basketball facilities, etc. The remainder of the area should be designed for younger children and swings, slides, jungle gyms and riding equipment can be installed in this area to good effect.

Landscaping for the park should be both aesthetic and functional. Large and medium sized deciduous trees should be placed at random for ornamental value and for shade. As a contrast, medium-sized evergreen trees and an evergreen hedge area are proposed to provide a visual buffer from the adjacent highway. The evergreen hedge should provide a buffer between playground activites and adjacent residential uses.

The site plan also proposes the construction of five parking spaces off of the proposed Ledyard Street cul-de-sac for public use.

Sector 16

OBJECTIVES OF DEVELOPMENT

- Provide for the development of a neighborhood park
- Provide a landscaped buffer strip between highway facilities and adjacent residential uses.

SECTOR CHARACTERISTICS

The sector in question is comprised of the southern portion of the Interstate 95 right-of-way between Briggs Street and Colman Street. Within that part of the right-of-way east of the proposed Perkins Street cul-de-sac, approximately 1.4 acres of land can be made available for playground development. To the west of the proposed Perkins Street cul-de-sac, the highway facility passes within 120 feet of the adjacent residential structures, and environment protection must be provided.

INTERSTATE 95
N-E
RAMP A
LINE D
RAMP C
Noise Burm ?
RAMP A
PLAYGROUND
RECREATION
PARKING
BRIGGS STREET
LEDYARD
NORWOOD AVENUE
CREST STREET
FITCH AVENUE
BERKLEY

SECTOR 15

The New London CDAP indicates that there are 448 children under 18 years of age within the area and that no recreation facilities are immediately available in the area.

DEVELOPMENT POTENTIAL

A neighborhood park can be created in the western portion of this sector. Playground facilities shall be provided for all age groups, but shall be designed to segregate the older children from the younger.

Within the playground area, landscaping shall be both aesthetic and functional. Large and small deciduous trees will be appropriate for aesthetic and shading purposes. Medium sized evergreen trees and an evergreen hedge must be judiciously placed to create a visual buffer between the highway and residential development.

An evergreen hedge or architectural fence should also be provided to screen the playground activity areas from the adjacent residential uses.

To the west of the proposed Perkins Street cul-de-sac, landscaped earth berms are planned to reduce the pollution, noise and visual effect of the highway on the adjacent residential structures. These earth berms can be created within the highway right-of-way and will serve the purpose of redirecting lines of sight and refracting noise levels.

Landscaping within this area shall be medium sized evergreen and shrub vegetation planted near the crest of the berm for 100% opacity. Planting design shall be linear and grouped as specific areas demand.

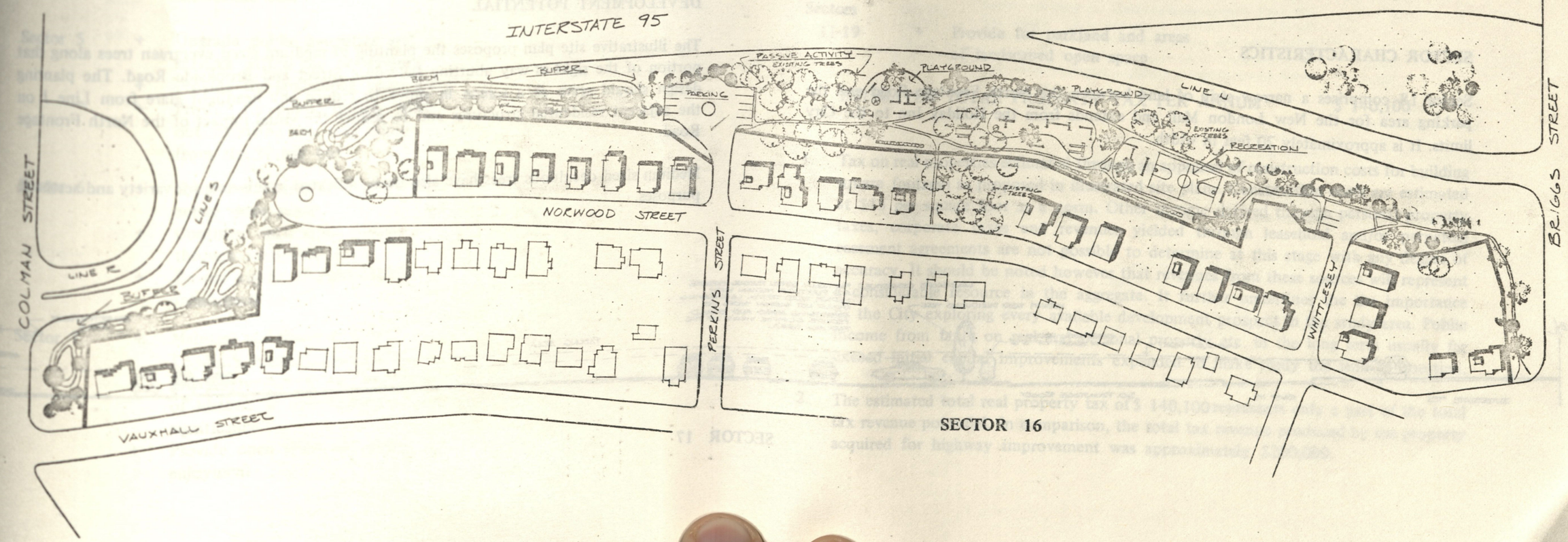
Sector 17

OBJECTIVES OF DEVELOPMENT

- Provide a partial visual buffer between highway development and the New London Shopping Center parking area.

SECTOR CHARACTERISTICS

Sector 17 is comprised of the 20 foot median strip between the South Frontage Road and the New London Shopping Center parking area. The area is barren and devoid of foliage. The freeway and parking area, in combination, represent a huge horizontal "sea of asphalt", broken only by the autos themselves - a harsh townscape to view on entering the City.



SECTOR 16

DEVELOPMENT POTENTIAL

The expansiveness of the parking area should be softened by creating a partial buffer strip along this median. This will reduce the visual distractions created by the multi-directional movement of vehicles in the parking area, the reflection of sunlight on windshields and headlight glare at night.

Preliminary investigations indicate that a 5' 6" evergreen hedge would adequately eliminate these conflicts, yet only screen out about one-half of the parking area without affecting direct views of the stores' advertisement signs.

Medium sized deciduous trees have also been proposed for this area as vertical punctuation and aesthetic purposes. Care should be exercised in their placement so as to avoid the screening of store advertising on the structures or the obliteration of the freestanding advertisement and directional signs located within the median.

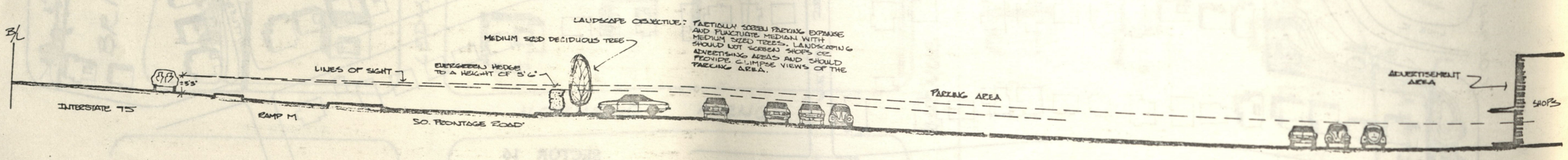
Sector 18

OBJECTIVE OF DEVELOPMENT

- Provide a partial visual buffer between highway development and adjacent shopping area parking facilities.

SECTOR CHARACTERISTICS

Sector 18 comprises a narrow strip of land between the North Frontage Road and the parking area for the New London Mall and extends from the Holiday Inn to the City limits. It is approximately 20 feet in width.


B/L
INTERSTATE 95
RAMP M
SO. FRONTAGE ROAD
LINES OF SIGHT
EVERGREEN HEDGE TO A HEIGHT OF 5'6"
MEDIUM SIZED DECIDUOUS TREE
LANDSCAPE OBJECTIVE: PARTIALLY SCREEN PARKING EXPANSE AND FRACTIONATE MEDIAN WITH MEDIUM SIZED TREES. LANDSCAPING SHOULD NOT SCREEN SHOPS OR ADVERTISING AREAS AND SHOULD PROVIDE GLIMPSE VIEWS OF THE PARKING AREA.
PARKING AREA
ADVERTISEMENT AREA
SHOPS

SECTOR 17

DEVELOPMENT POTENTIAL

The illustrative site plan proposes the planting of low evergreen vegetation and medium sized deciduous trees for contrast in order to reduce the visual distractions created by movement in the parking areas. Careful consideration should be given to planting design, to avoid screening advertising signs of the commercial buildings. Also, the parking areas should be partly exposed to the highway for purposes of customer attraction.

Sector 19

OBJECTIVES OF DEVELOPMENT

- Provide a landscaped buffer from highway development.

SECTOR CHARACTERISTICS

Sector 19 is composed of the Interstate 95 northern right-of-way between Briggs Street and Coleman Street. The abutting uses are scattered low density residential development and vacant land.

DEVELOPMENT POTENTIAL

The illustrative site plan proposes the planting of medium sized evergreen trees along that portion of the right-of-way abutting Belvedere Street and Brookside Road. The planting design should serve as a screen in order to reduce any headlight glare from Line J on the adjacent residential structures and to reduce the visual impact of the North Frontage Road.

Medium sized deciduous trees have also been indicated in this area for variety and aesthetic purposes.

BENEFITS THAT ACCRUE TO CITY

Locality		Intangible Benefits	Tangible Benefits (property tax per annum)
Sector 1	+	New public boat launching facility & associated uses	
Sector 2	+	Provide employment opportunity	$ 31,000
	+	Create new land within the City's industrial land bank	
	+	Free riverfront land stymied by restrictions of at grade railroad crossings	
	+	Stimulate New London's economy	
Sector 3	+	Provide employment opportunity	$ 66,500
	+	Stimulate New London's economy	
Sector 4	+	Accommodate "fringe CBD" type uses	$ 5,200
	+	Provide opportunities for businesses affected by the urban renewal process.	
	+	Create opportunities for new basic investments to support the Grand List	
Sector 5	+	Upgrade public amenities and services within the community	
	+	Provide for landscaped open space	
	+	Provide for public facility without removing any real estate from the Grand List	
Sector 6	+	Create new land for passive and active open space	
	+	Continue open space linkage through residential areas	
	+	Ensure safety of surrounding inhabitants	
Sector 7	+	Maintain and illustrate New London's historic tradition	
	+	Provide repository for structures of historic or architectural significance	
	+	Provide open space for public enjoyment	
Sector 8	+	Restore balance in New London's commercial structure by replacing land designated for neighborhood commercial use and taken for highway improvements	$ 8,000
	+	Provide for amenities associated with the existing residential development	
Sector 9	+	Upgrade public amenities and services within the community	
	+	Provide for landscaped open space	
Sector 10 (Site "A" & Site "B")	+	Stimulate the economy by returning real estate to the tax rolls	$ 29,400
	+	Provide for new industrial development potential within New London's limited industrial land supply	
	+	Broaden employment prospects	
Sectors 11-19	+	Provide for parkland and areas of landscaped open space	
ESTIMATED TOTAL PROPERTY TAX PER ANNUM			$ 140,100

1. Tax on real properties estimated through an appraisal of construction costs for building square footages as proposed in illustrated site plans. Construction costs are estimated at $15 per square foot as a norm. Other income derived through personal property taxes, corporate taxes and revenues yielded through leasehold and/or perpetual easement agreements are not possible to determine at this stage with any degree of accuracy. It should be noted however that revenues from these sources will represent a considerable resource in the aggregate. It further underlines the the importance of the City exploring every avai able development prospect in the study area. Public income from taxes on real and personal property etc. in the long term usually far exceed initial capital improvements expended to make ready the land in question.

2. The estimated total real property tax of $ 140,100 represents only a part of the total tax revenue potential. In comparison, the total tax revenue produced by the property acquired for highway improvement was approximately $200,000.

SUMMARY OF PREREQUISITES TO DEVELOPMENT AND ESTIMATED COSTS (SECTORS 1 - 10)

LOCALITY	PREREQUISITES TO DEVELOPMENT	ESTIMATED COSTS	
SECTOR I			
	+ Site preparation and rough grading	$ 2,000	
	+ Treatment of site and waterline in conformity with selected methods of flood proofing for Sector 2	50,000	
	+ Construct launching ramp	3,800	
	+ Pave parking area	7,680	
	+ Construct all associative facilities	10,000	
			$ 73,480
SECTOR 2			
	+ Obtain permit for land reclamation		
	+ Provide land fill and construct bulkhead	165,000	
	+ Provide for a method of flood control (fill and rough grading)	15,000	
	+ Construct 26' wide roadway with curb and 5' sidewalks	48,000	
	+ Install all utilities within proposed roadway	38,000	
	+ Install landscaping in public areas	1,000	
			$267,000
SECTOR 3			
	+ Acquire 2.2 acres of land to facilitate joint development (property value)	300,000	
	+ Demolition and clearance of acquired land	21,000	
	+ Rough grade sites within sector	16,100	
	+ Create landscaped buffer strip	7,000	
	+ Obtain zoning change to Light Industrial		
Lewis Street (east of Crystal Avenue)			
	+ Provide following street improvements within existing 50' right-of-way: construct 42' of pavement, install new curbs and 4' sidewalks	60,000	
	+ Construct cul-de-sac turn-around at eastern extremity of road	5,000	
Central Avenue			
	+ Scarify and remove that portion of Central Avenue proposed for closure. Retain as easement.	650	
	+ Construct "hammerhead" turn-around for the remaining portion of Central Avenue	3,000	

LOCALITY	PREREQUISITES TO DEVELOPMENT	ESTIMATED COSTS	
Adelaide Street			
	+ Construct cul-de-sac at eastern extremity of street	5,000	
Eastern Avenue			
	+ Scarify and remove 150' of pavement at northern extremity of street	250	
	+ Provide for new pavement, curbs and sidewalks within existing right-of-way	38,600	
	+ Construct cul-de-sac at the northern extremity of street	5,000	
			$461,600
SECTOR 4			
	+ Rough grade northwesterly portion of sector between Piers 12 and 13	4,700	
	+ Provide for small stone wall or embankment within above area	10,000	
	+ Zone change for Commercial usage		
	+ Landscape buffer strip to be contiguous with that of Sector 5	400	
Crystal Avenue			
	+ Repave and reset curbs in that part of Crystal Avenue abutting Sectors 3 and 4 to conform to renewal area construction	38,000	
	+ Provide for appropriate sidewalk repairs within this area	1,200	
Lewis Street (west of Crystal Avenue)			
	+ Provide new pavement and reset curbing	38,000	
			$ 92,300
SECTOR 5			
	+ Rough grade that portion of the site designated for parking and structure placement	1,500	
	+ Plant evergreen screen along northern boundary of sector	3,000	
	+ Provide for general landscaping and passive activity areas	3,500	
Winthrop Street			
	+ Construct new sidewalks on both sides of street	12,000	
	+ Reset approximately 25 feet of curbing	275	

LOCALITY	PREREQUISITES TO DEVELOPMENT	ESTIMATED COSTS	
Terrace Avenue			
	+ Construct "hammerhead" turn-around at the southern extremity	3,000	
			$ 23,275
SECTOR 6			
	+ Extend North and South Conduits to Crystal Avenue	400,000	
	+ Provide necessary land fill over conduits and grade	111,000	
	+ Seed and landscape to conform to surrounding environment	12,000	
	+ Provide passive activity areas	1,500	
			$ 524,500
SECTOR 7			
	+ Grade proposed parking area	3,000	
	+ Square off and reconstruct retaining wall around proposed parking area at the north corner of the Old Mill site	3,400	
	+ Pave proposed parking area	8,040	
	+ Provide evergreen screen planting between Cole Street and proposed parking area	1,000	
	+ Rough grade areas to receive structures as relocation phasing permits	760	
	+ Install all necessary utilities		
	+ Site landscaping and beautification (including pathways, etc.)	11,000	
	+ Prepare Historic Complex plan of development		
Cole Street			
	+ Construct one-way access drive and parking area within right-of-way of existing Cole Street to permit access to existing garages and provide parking for those residences that do not have garages	4,000	
	+ Landscape area	300	
Mill Street			
	+ Provide constant pavement width of 32'		
	+ Repave and reset curbs	11,300	
	+ Replace sidewalk on south side of street	3,700	
			$ 46,500

LOCALITY	PREREQUISITES TO DEVELOPMENT	ESTIMATED COST	
SECTOR 8			
	+ Redesign location of approximately 200' of 30" storm sewer to Williams Street		
SECTOR 9			
	+ Property acquisition (cost subject to detailed appraisal)	7,000	
	+ Rehabilitate existing church facility	1,000	
	+ Landscape area	3,000	
	+ Pave proposed parking area		$ 11,000
SECTOR 10			
	+ Obtain zoning change to Light Industrial		
	+ Rough grade sites and land fill	11,000	
	+ Redesign embankment slopes to 2:1 ratio within the interior of Ramp F and along the westbound portion of I-95		
	+ Provide means of access to interior of Ramp F. Preliminary investigations indicate the most feasible and inexpensive method would involve the utilization of two structural plate pipes of adequate dimensions for each to service one-way traffic movements. However, detailed design aspects of this proposal must be given further consideration. (Costs contingent upon final design)		
	+ Construct proposed extension of New Street cul-de-sac as necessary	8,400	
	+ Reconstruct utilities to acceptable standards	18,000	
			$ 37,400
	TOTAL COST		$1,537,055
	25% Increase in Cost to Execution and Contingencies		384,264
	GRAND TOTAL		$1,921,319

SUMMARY OF PREREQUISITES TO DEVELOPMENT AND ESTIMATED COSTS
(SECTORS 11 - 19)

LOCATION	LANDSCAPING			HARDWARE		FUNCTIONAL ITEMS		ESTIMATED COSTS					
	Plant Type	Planting Design	Other	Type	Other	Type	Other	Description	Quantity	Unit	Unit Price (in place)	Amount	Totals
SECTOR 11	LT,d	O,GL							8	Ea.	$ 100.00	$ 800	
	MT,eg,d	O,GL,G							12	Ea.	50.00	600	
				F				Flower bed-sculpture,etc.		L.S.	500.00	500	
						b		Permanent	10	Ea.	100.00	1,000	
						t			6	Ea.	50.00	300	
						f		Wood, low	120	L.F.	5.00	600	
						s		Informal,6'wide conc.	6,000	S.F.	1.50	9,000	
						l		Provided by HELCO					
						w			3	Ea.	250.00	750	
									TOTAL SECTOR 11				$ 13,550
SECTOR 12	MT,eg	S,L&G							60	Ea.	$ 50.00	$ 3,000	
	LT,d	O,GL							5	Ea.	100.00	500	
						s		Informal, 6' wide conc.	3,600	S.F.	1.50	5,400	
						b		Permanent	3	Ea.	100.00	300	
						l		Provided by HELCO					
									TOTAL SECTOR 12				$ 9,200
SECTOR 13	LT,d	O,GL							9	Ea.	$ 100.00	$ 900	
	MT,eg	S,L							60	Ea.	50.00	3,000	
	ST,d	O,GL							8	Ea.	20.00	160	
				gr				Play area Lt. grading	1 acre	C.Y.	1.20	2,040	
					BB			Blackboard stanchion rubber cork base pavement	1	L.S.	3,200.00	3,200	
					SW			9 seats, heavy duty 8' ht.		L.S.	970.00	970	
								6' ht.	2	Ea.	630.00	1,260	
					SL			8' diameter	4	Ea.	720.00	2,880	
					W				1	Ea.	720.00	720	
					CL			Kindergarten-chair	2	Ea.	600.00	1,200	
					SW				6	Ea.	200.00	1,200	
					SM								
						l		Provided by HELCO					
						w							
						b		Athletic-10' section	2	Ea.	$ 250.00	$ 500	
						b		Permanent	4	Ea.	68.00	272	
						s		6' wide, conc.	5	Ea.	100.00	500	
						t			7,200	S.F.	1.50	10,800	
						f		Low-wooden	6	Ea.	50.00	300	
									200	L.F.	5.00	1,000	
									TOTAL SECTOR 13				$ 30,902

LOCATION	LANDSCAPING Plant Type	Planting Design	Other	HARDWARE Type	Other	FUNCTIONAL ITEMS Type	Other	Description	Quantity	Unit	Unit Price (in place)	Amount	Totals
SECTOR 14	LT,d,eg	O&S,GL											
	MT,eg	S,L&G							10	Ea.	100.00	1,000	
	ST,d	O,GL							150	Ea.	50.00	7,500	
						s		6'wide, conc.	20	Ea.	20.00	400	
						b		Permanent	6,600	S.F.	$ 1.50	$ 9,900	
						t			8	Ea.	100.00	800	
						l		Provided by HELCO	8	Ea.	50.00	400	
									TOTAL SECTOR 14				$ 20,000
SECTOR 15	LT,d	O,GL							6	Ea.	$ 100.00	$ 600	
	MT,eg,d	S&O,L&G							60	Ea.	50.00	3,000	
	SH,eg	S,H							200	L.F.	2.50	600	
			gr					Play Area Lt. grading	1.1 acre	C.Y.	1.20	2,220	
				BB				Backboards,stanchions rubber cork base pavement	1		3,200.00	3,200	
				SW				9 seat, heavy duty, 8' ht.	1	Ea.	970.00	970	
				W				8' diameter	2	Ea.	720.00	1,440	
				JG					1	Ea.	720.00	720	
				SL				6' height	2	Ea.	630.00	1,260	
						s		6' wide, conc.	4,800	S.F.	1.50	7,200	
						b		Athletic-10' section	4	Ea.	68.00	272	
						b		Permanent	4	Ea.	100.00	400	
						w			2	Ea.	250.00	500	
						l		Provided by HELCO					
						t			3	Ea.	50.00	150	
						f		Low-wooden	120	L.F.	5.00	600	
						p			110	S.Y.	3.00	330	
									TOTAL SECTOR 15				$ 23,462

SYMBOLS:

PLANT TYPE

- LT - Large Tree
- MT - Medium Tree
- ST - Small Tree
- SH - Shrub
- eg - Evergreen
- d - Deciduous

PLANTING DESIGN

- S - Screen
- O - Ornamental
- G - Group
- L - Linear
- H - Hedge
- GL - General

OTHER

- gr - Grading
- b - Berms

HARDWARE TYPE

- BB - Basketball Court
- SW - Swings
- SM - "Saddle Mate"
- W - Riding Toy "Whirl-a-Way"
- SL - Metal Slide
- CL - Climber
- F - Feature
- JG - Jungle Gym

FUNCTIONAL IMPROVEMENTS

- l - Lights
- t - Trash Receptacles
- f - Fence - architectural
- p - Parking
- w - Water
- b - Bench
- s - 6' wide Sidewalk
- pb - Pedestrian Bridge

LOCATION	LANDSCAPING			HARDWARE		FUNCTIONAL ITEMS		Description	Quantity	Unit	Unit Price (in place)	Amount	Totals
	Plant Type	Planting Design	Other	Type	Other	Type	Other						
SECTOR 16	LT,d	O,GL							15	Ea.	$ 100.00	$ 1,500	
	ST,d	O,GL							15	Ea.	20.00	300	
	MT,eg	S,L&G							150	Ea.	50.00	7,500	
	SH,eg	H							400	L.F.	2.50	1,000	
			b						6,250	C.Y.	2.50	15,600	
			gr						1.4 acre	C.Y.	1.20	2,680	
				BB				Play area, Lt. grading backboards, stanchion rubber cork base pavement	1	L.S.	3,200.00	3,200	
				SW				9 seat, heavy duty					
								8' height	1	Ea.	970.00	970	
				JG					1	Ea.	720.00	720	
				SL				6' height	2	Ea.	630.00	1,260	
				W				8' diameter	2	Ea.	720.00	1,440	
						s		6' wide conc.	15,000	S.F.	1.50	22,500	
						b		Athletic-10' section	4	Ea.	68.00	272	
						b		Permanent	6	Ea.	100.00	600	
						w			2	Ea.	250.00	500	
						l		Provided by HELCO					
						t							
						f		Low-wooden	3	Ea.	50.00	150	
						p		Amesite	120	L.F.	5.00	600	
									490	S.Y.	3.00	1,470	
								TOTAL SECTOR 16					$ 62,262
SECTOR 17	MT,d	O,G							9	Ea.	$ 50.00	$ 450	
	SH,eg	H						5'6" height	1,200	L.F.	2.50	3,000	
								TOTAL SECTOR 17					$ 3,450
SECTOR 18	MT,d	O,G							12	Ea.	$ 50.00	$ 600	
	SH,eg								500	L.F.	2.50	1,250	
								TOTAL SECTOR 18					$ 1,850
SECTOR 19	MT,eg	S,L&G							60	Ea.	$ 50.00	$ 3,000	
	MT,d	O,GL							20	Ea.	50.00	1,000	
WILLIAMS STREET													$ 4,000
								8' width	200	L.F.	$ 250.00	$50,000	
								TOTAL WILLIAMS STREET					$ 50,000
								1971 COST ESTIMATE					$218,676
								25% Increase in Cost to Execution and Contingencies					54,669
								GRAND TOTAL					$273,345

Note: All landscape proposals are in addition to the seeding, fertilizing and loaming proposed by the State Department of Transportation.

GENERAL CONTROLS FOR DEVELOPMENT OF REAL PROPERTY

The basic standards and controls for the development of real property shall be the provisions of this Plan herein set forth, and the New London Zoning Ordinance, the New London Building Code, and all other applicable laws, codes and ordinances. In all cases, the more restrictive control governs.

The following general controls of development shall apply to all parcels unless this Plan specifically designates other requirements:

Landscaping

All required setback areas and all open areas other than parking and loading areas shall be landscaped in an attractive manner and properly maintained at all times. Landscaping shall be construed to mean the planting of trees, shrubs, and ground cover and the arrangement of these elements in an aesthetic manner. All landscaping shall be at the consent of the City and State Department of Transportation in order to avoid any deleterious effects on the highway structure.

Screen Planting

All off-street loading berths shall be screened with either trees, shrubs, fencing, wells or a combination of these materials. All such screeing shall be installed and maintained at a height of not less than 4 feet above the level of the loading dock or platform. If a tree planting strip is used, it shall be at least 5 feet wide for proper tree growth. Trees with low growing branches, blossoms, seeds, or pods should be avoided.

All off-street parking areas shall be screened from public streets or abutting rights-of-way by screen planting not less than 3 1/2 feet above the surface of the parking area and designed to provide 80% or more continuing opacity within 12 months after installation. Whenever such a parking area is adjacent to or facing a residential area, tree planting in addition to the aforementioned screen planting should be provided at a minimum of 50 foot intervals.

Grading and Drainage

The proposed grading and method of drainage of each parcel shall require the consent of the City and the State Department of Transportation in order to avoid the possibility of deleterious effects upon the highway structure and surrounding area.

Required Loading Facilities

All loading berths must be off-street, screened from public view, and must not overlap any traffic lanes. All loading areas shall have a minimum setback of five (5) feet from all street right-of-way lines and lot lines. Maneuvering of delivery vehicles must not take place in the public right-of-way. No curb cuts may be within 25 feet of any street intersection. The developer must demonstrate that the size and number of loading berths proposed is adequate to meet the operational requirements of the use proposed. In lieu of such demonstration, loading berths shall be provided at the rate of one loading berth for each initial 15,000 square feet of gross floor area, or part thereof, plus one additional space for each additional 25,000 square feet or one loading berth per establishment. The developer may provide centralized loading facilities for groups of stores but in no case shall more than four stores be served from a single loading berth. Suitable means of access must be available to loading facilities of abutting existing uses to remain. Loading berths shall be at least 12 feet wide, 40 feet long and 14 feet clear height. All such berths shall be suitably paved, drained, and lighted in accordance with specifications approved by the City and State Department of Transportation. These requirements shall apply to all parcels unless this plan specifically designates other loading requirements.

Outdoor Storage

No outdoor storage shall be permitted between the setback line and the street. Permitted outdoor storage shall be properly screened in such a manner that the height of the materials stacked shall not exceed the height of the screening. Screening shall be between five (5) and nine (9) feet in height.

Maintenance

Property shall be maintained in a clean, sanitary and attractive condition at all times. Debris and building materials shall not be stored or piled on the premises except during building construction. Roof structures and parapets shall provide for an attractive appearance from all directions including views from above.

Sign Control

Signs - Flashing, illuminated signs, exposed neon signs and signs other than those relating to business on the site shall not be permitted. Illuminated non-flashing signs must be belt-type signs.

It is not the intent of these standards to restrict the use of the standard or familiar store signs of potential tenants. However, such signs must be integrated into the overall sign layout of the project in character and quality. Signs must be placed on the floor level on which the store or use is located and it must not project more than 24 inches from the face of the building. The placing of signs on the structure must be uniform for all stores anduses. Directional signs, if used, may not be more than 8 inches high and 30 inches long with uniform 4 inch high letters. The developer of any site shall be allowed to erect one sign identifying the development.

Signs identifying the business establishment(s) which are to be attached to a face of a building fronting on a public street shall have a total area limited to one (1) square foot for each one (1) linear foot of building wall on which the sign or signs are to be located. If a building contains more than one enterprise, the allowable sign area per enterprise shall be determined by comparing the percentage of building occupied by the firm to the total allowable sign area for the building. If the use of the premises does not include a main building, the total area of signs shall not exceed thirty-two (32) square feet in area.

No sign shall be painted on any exterior wall of a building.

No sign shall be painted on or attached to a window to be viewed from the outside as outdoor advertising above the first story of any structure.

Temporary signs not exceeding thirty-two (32) square feet in area relating to the construction, sale or lease of the premises shall be permitted.

All signs must be integrated into the architectural design of the building on which it is placed and into the overall sign layout of the area in character and quality. To insure uniform design, the developer must submit the design and specification of all signs to the City for its approval.

PLAN SUBMISSION

Design Review and Plan Submission

The specific proposals for the redevelopment of all parcels shall be evaluated by the City and State Department of Transportation as to the manner in which they achieve the objectives, standards and controls of this Plan. While the Redevelopers will be given freedom in concept, design, and layout within the standards specified in this Plan, the structures and any facilities to be erected must reflect distinguished architectural expression and techniques so as to signify quality and permanence.

The Design Review procedure shall be as follows:

Initial Submission

The redeveloper shall, as part of his initial application, submit preliminary plans and specifications indicating in simple diagrammatic fashion, the size, shape, height, and main elevation of the proposed building; the area of property desired; proposed location and extent of parking; loading facilities; exterior building materials; and landscaping.

Drawings shall be at the following scales: 1" - 40' for site plans and 1/16" = 1'0" for diagramatic building drawings.

An attached statement shall briefly describe the intended use of the building and shall state the approximate number of employees and special or unusual requirements, if any, concerning such matters as parking, servicing, signs, future expansion, refuse, utilities, and other conditions of operation. After review of this material by the City and State Department of Transportation, revision and resubmission may be required. If the requirements of the Applicant are deemed acceptable, he may be nominated as a Redeveloper by the City.

Preliminary Submission

After his nomination by the City, the Nominee shall submit drawings and descriptive material that will illustrate and describe the type and quality of building proposed and its location on the specific property.

Drawings shall be at the following scales: 1" = 20' for the site plans and 1/16" = 1'0" for all building plans and elevations. An accurate perspective drawing should be submitted to illustrate the design.

The site plan should illustrate the following: The outline of all structures, all parking spaces, loading berths, driveways, landscaped areas, and all internal vehicular movements; the approximate location of all curbs, bumper strips, internal drainage facilities, curb cuts, directional signs, and other appurtenances; proposed internal space allocation; and notations pertaining to exterior building materials.

After review of this material by the City and State Department of Transportation, revision and resubmission may be required. If the building proposed by the Nominee is deemed acceptable, the City can direct that an Agreement be prepared. The Redeveloper shall not deviate substantially from the accepted proposal except with the express consent of the City and State Department of Transportation.

Working Drawings

Working drawings shall consist of maps, plans, profiles, specifications, and supporting documentation, in detail necessary to illustrate the nature of the architectural and engineering design with respect to the following elements:

Site: Including the existing and proposed grades or elevations of the property; the size and shape of the building(s) and their location; the location of parking and loading areas; the location of driveways and all internal vehicular movements; the location of landscaped areas including the specific identification of trees and shrubs; the location of signs; and the location of drainage and sanitary lines.

Building:: Including plans of all levels of such buildings showing floor elevation and layout of interior spaces; interior and exterior building materials including colors, textures, and details; elevations of all facades showing heights, finished signs, and materials; the method of roof drainage; the size, location and appearance of roof structure and mechanical equipment; cross-sections indicating nature of construction; the method of electrical service and the location of transformers; and the location, placement, size, and detail lettering of all signs, etc.

Specifications: Including the building(s), footings, and foundations, parking and other paved areas outside the buildings, and landscaped areas including plant materials, sizes and species proposed.

Drawings shall be at the following scales: 1" = 20' for site plans and 1/8" = 1'0" for building drawings. If necessary to present design features clearly, details at a larger scale shall be included. A well executed, accurately drawn perspective is desirable and is required if essential features of the design are not otherwise clearly shown.

The Redeveloper shall retain a Registered Professional Architect and a Professional Engineer to prepare all construction plans and to provide nominal supervision during building construction and construction of site improvements. This requirement is to insure that the architectural integrity of the final design is not infringed upon in any serious manner.

The approval of the working drawings by the City and State Department of Transportation is contingent upon the issuance of a Building Permit by the Building Inspector of the City of New London for the implementation of such drawings.

Interpretation

Questions on interpretation of the exact application or meaning of these provisions shall be addressed in writing to the City, or to the agency responsible at the time of the request.

SELECTED REFERENCES

Appleyard, Lynch, and Myer, *The View from the Road*, M.I.T. Press, Cambridge, Massachusetts, 1964.

Barton-Aschman Associates, *Multiple Use of Land Within Highway Rights-of-Way*, NCHRP Report 53, Highway Research Board, 1968

Brinton, Jr., John H. and Joel N. Bloom, *Effect of Highway Landscape Development on Nearby Property*, NCHRP Report 75, Highway Research Board, 1969.

Purcell Associates, Inc., *Area Wide TOPICS Study, New London, Connecticut*, 1970.

James P. Purcell Associates, Inc., *Community Development Action Program, New London, Connecticut*, 1970.

James P. Purcell Associates, Inc., *Master Plan Program, New London, Connecticut*, 1967.

James P. Purcell Associates, Inc., *New London Transportation Study*, 1967.

James P. Purcell Associates, *Winthrop Urban Renewal Plan*

Tunnard, Christopher and Boris Pushkarev, *Man-Made America - Chaos or Control*, Yale University Press, New Haven, Connecticut, 1966.